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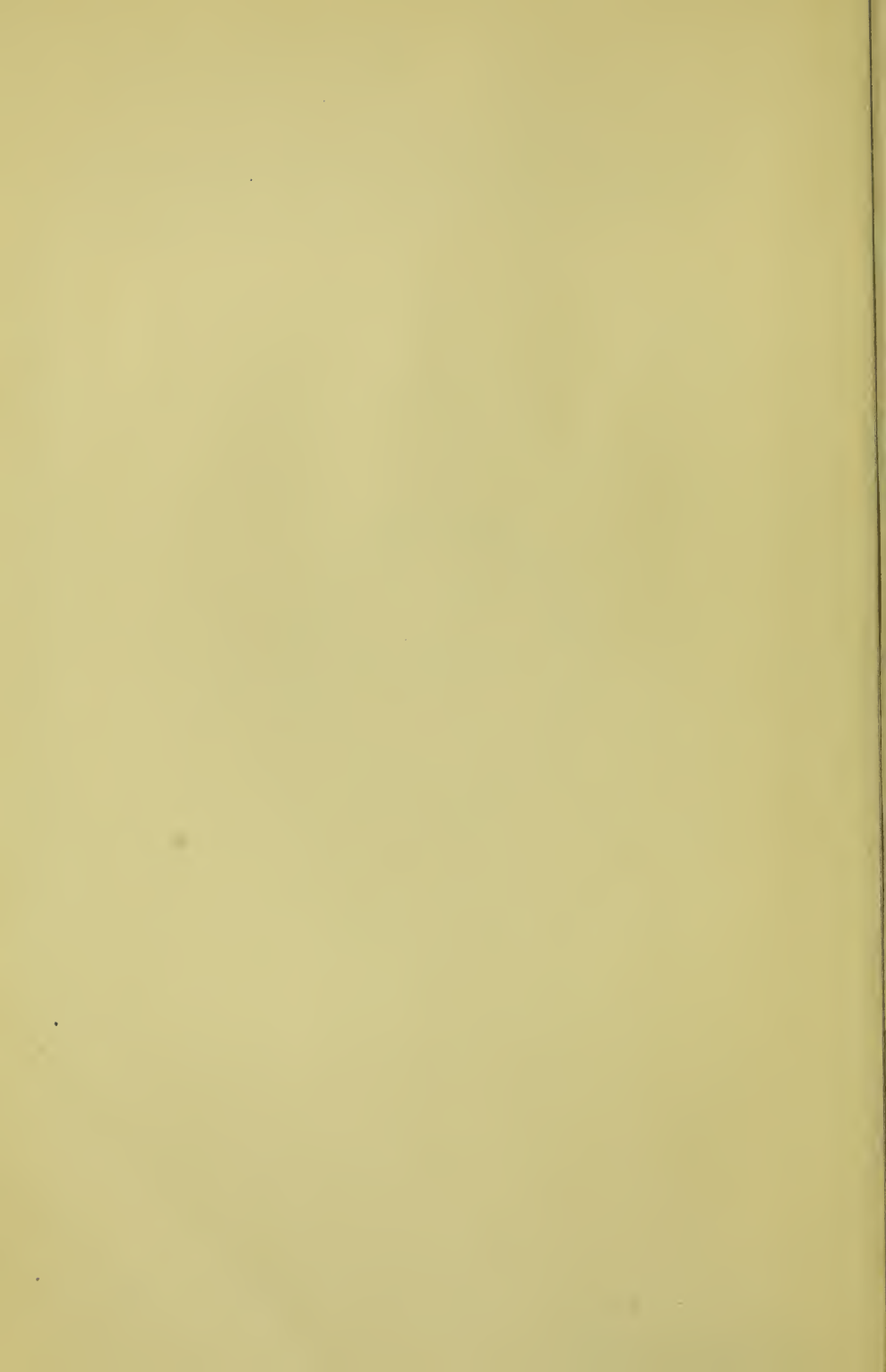


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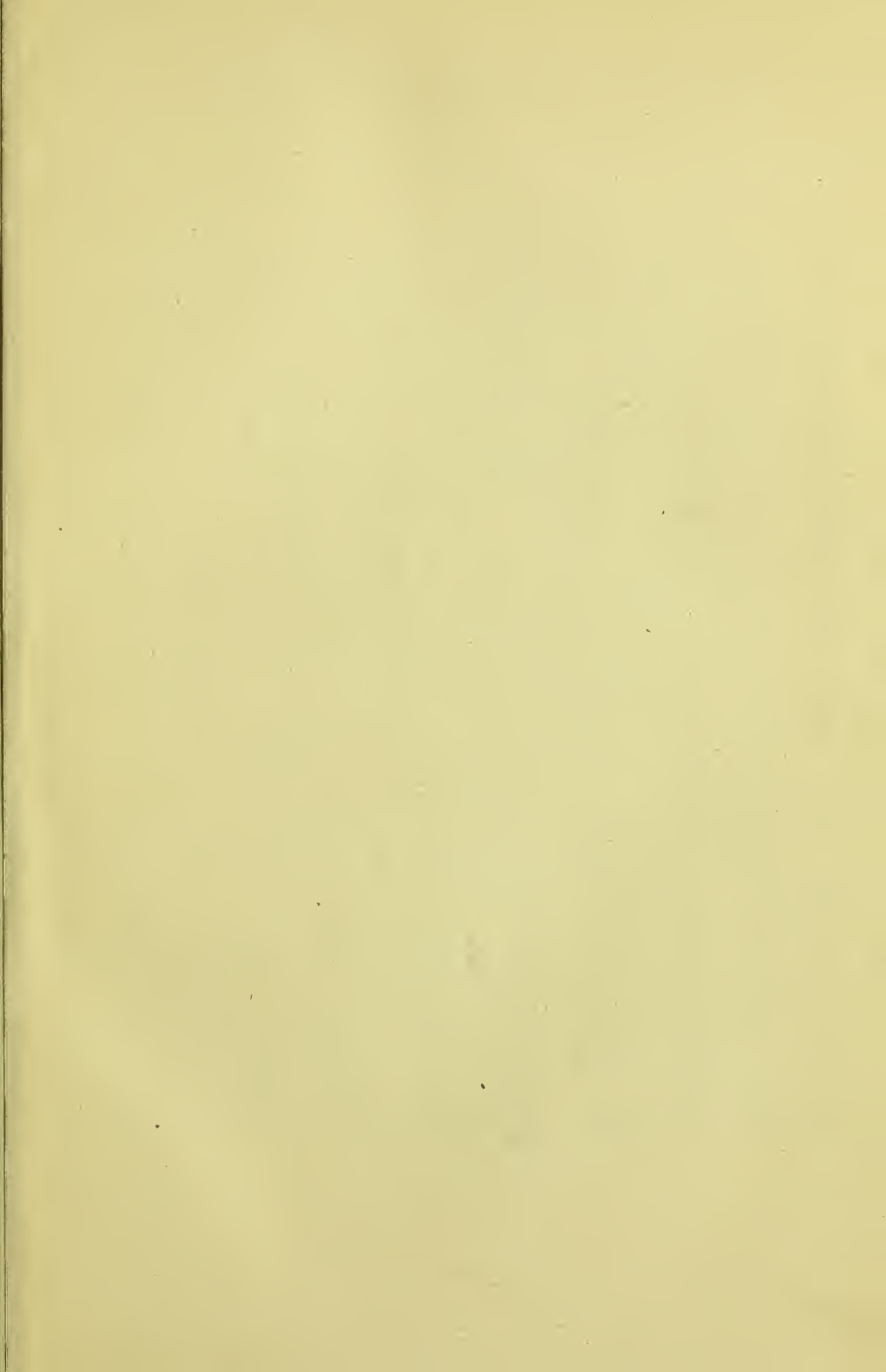
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WITNESSETH,

Sciant presentes et futuri quod Ego Gilbertus Prior ecclesie sancte marie de buttreleia et conventus  
eius loci hospitalis sancti Bartholomei lund. et fratrum eisdem hospit. totum tenementum  
de feodo Radulphi de Arden. quod tenentur iohannes de ecclesia sancte marie de buttreleia i iure  
sancti nicholai apud novum macellum tenendum de nobis iure perpetuo. Reddendo nobis annu-  
atim pro omni servitio. x. solidi. Ad duos terminos. scilicet ad festum sancti michaelis et  
solidi. et ad pascha. x. solidi. Pro autem conventui illi perpetuo. Signum nostri conventus et  
signum hospitalis sancti Bartholomei testimonio roborat. His testibus. Hubertus de alton decano  
clonacensis. Petrus de clamworth. Iudanus de schetruis. Magister Robertus fraba. Ro-  
gerus de alton. Henrico de klegge. Nicholao pinena. Walterum ianmore et regem son-  
doniar. Henrico de cornhill. Radulfus et alii. Sic fit. Regis. Henrico de lundene  
monach. Rogo te duc. Rogo fit Alanus. Galfridus Albi. Andree Albi. Petrus fit  
muel. Robertus de eximetur. Iohannes medico lund.

GRANT BY GILBERT, PRIOR OF BUTTLEY, TO ST. BARTHOLOMEW'S HOSPITAL, 1186-1189.  
WITNESSED BY A PHYSICIAN.

# THE HISTORY OF THE STUDY OF MEDICINE IN THE BRITISH ISLES

THE FITZ-PATRICK LECTURES FOR 1905-6  
DELIVERED BEFORE THE ROYAL COLLEGE OF  
PHYSICIANS OF LONDON

BY

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TROPICAL MEDICINE  
AND  
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HENRY FROWDE, M.A.

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## PREFACE

THE first of these lectures treats of Medical Study in London during the Middle Ages, and of John Mirfeld, a physician, who lived in London in the reign of Richard II.

The second lecture treats of the reading and general attainments of physicians from the foundation of our College, in 1518, to the beginning of the eighteenth century. I have described, as an example of what the course of education and the learning of a physician were at the end of this period, the studies and attainments of Dr. Edward Browne, who lived from 1644 to 1708, and was physician to St. Bartholomew's Hospital.

In the third and fourth lectures I have tried to show how that part of medicine which consists in the precise observation of patients grew up in England, Scotland, and Ireland; and I have particularly considered the effect of the works of Mayerne, Glisson, and Sydenham upon this study in England, and the influence of Boerhaave upon it in Scotland and Ireland.

In the Appendix I have printed from the manuscript in Mayerne's hand in the British Museum his notes on the health of James I, and the report on Queen Henrietta Maria which he drew up when she thought of going abroad in 1641.

From the original cartulary of Abingdon Abbey in the British Museum I have printed seven short charters and the termination of a lengthy one, all witnessed by Grimbold the physician, and from the original at St. Bartholomew's a charter of Gilbert, Prior of Buttlely, witnessed by John of London, the physician.

The Treasurer and Almoners have been so good as to allow me to print this document here as well as in a History of St. Bartholomew's Hospital, on which I have been long engaged, and which will appear during the coming year.

I have reprinted my account of Harvey's manuscript notes on the *Opuscula* of Galen, published in the *Athenæum* for October 6, 1888.

I have to thank Mr. J. H. Herbert for making a copy for me of Mayerne's note on James I, and Mr. J. P. Gilson for most generously allowing me to study his notes on the *Florarium* of Mirfeld and on the manuscripts of the *Schola Salernitana* in the British Museum.

Finally, I have to thank the President, the Censors, and the Fellows of the Royal College of Physicians of London for the honour which they conferred upon me by appointing me to deliver these lectures before them.

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## LECTURE I

### MEDICAL STUDY IN LONDON DURING THE MIDDLE AGES

MR. PRESIDENT, Censors, and Fellows of the College,—It is right that these lectures should begin with a commemoration of Dr. Thomas Fitz-Patrick, the Member of this College in whose honour they were founded by Mrs. Fitz-Patrick. He was born in 1832 at Virginia in Cavan, received his school education at Carlow, and graduated in the University of Dublin. His medical career at Trinity College was distinguished, and is fitly commemorated there by a scholarship bearing his name. He had an inborn love of learning which was, of course, increased in the college of Burke and Swift and Goldsmith, and which continued without abatement to the end of his life. I had the advantage of knowing him and of enjoying his conversation, which was that of a man who had read and re-read the great books of Greek and Latin, of English, French, German, Italian, and Spanish literature till they had become part of his mind. He was devoid alike of love of display and of pedantry, and his one desire in knowing much was that what he knew might help him to know more.

The history of medicine is a subject which has never been neglected in this College. Dr. Richard

Bartlot of All Souls College, Oxford, our President in 1527, was learned in the particular part of it on which I propose to lecture to-day. It was included in the profound and varied attainments of Dr. John Caius, President in 1555. Sir Hans Sloane, our President from 1719 to 1735, made collections of materials for medical history which begin with twelfth-century manuscripts of Hippocrates and Galen and extend to the letters of the physicians of his own time. Dr. Baldwin Hamely, a Censor in 1640 and for forty-two years a Fellow of this College, wrote in Latin a biographical history of the physicians of his time from the year 1628, entitled *Bustorum Aliquot Reliquiae*. He endeavours to give the character of each physician in a few sentences, and though he never sacrifices truth to brevity he is not always free from the conceits which were in fashion when he was young. His account of Harvey is an example :

Of William Harvey, the most fortunate anatomist, the blood ceased to move on the third day of the Ides of June in the year 1657, the continuous movement of which in all men, moreover, he had most truly asserted. What more: His statue in his robes, and the marble carved with his epitaph in his museum in our college as well as his annual celebration will easily atone to Harvey for this my brevity. Unless, perhaps, it may be pleasing to add an epigram I made: That according to the opinion of Copernicus as to the motion of the earth and of Harvey as to the movement of the blood we are here—

Ἐν τε τροχῷ πάντες καὶ ἐνὶ πᾶσι τροχοί.

In Latin—

Tunc agit atque agimus nos rota nosque rotam ;

or in English—

Then are we all in a wheel and a wheel in us all.

Books, like living teachers, besides giving instruction in their subject, stimulate future workers, and the modest little book of Hamey, which only exists in manuscript, was probably the origin of Dr. William Munk's *Roll of the Royal College of Physicians of London*, a well-arranged collection of medical biography. Dr. MacMichael, Censor in 1820, wrote part of the *Lives of British Physicians* in which Dr. Munk also had a share, and which is a piece of good literature containing much information. The light and entertaining style of MacMichael's *Gold-headed Cane* must not exclude it from consideration as a contribution to medical history.

Dr. John Freind of Christ Church, Oxford, was elected a Fellow of our College in 1716. He was already known for his classical learning and soon became eminent in the practice of his profession. In 1725 and 1726 he published *The History of Physick from the time of Galen to the beginning of the Sixteenth Century*, which begins with Oribasius and Aetius and ends with Linacre, our founder. Freind had studied every author whose works he describes, and was as learned in the mediaeval writers as in the Greeks. He is always interesting, even in his accounts of the most prolix writers of the least brilliant periods, and his book is valuable because



he was skilled in the practice of medicine as well as deeply read in the medical treatises of classical, mediaeval, and modern times. His history is one of those few writings on the subject of a particular profession which, like Sir William Blackstone's *Commentaries on the Laws of England*, deserves a permanent place in general literature. I need only remind you of the works of our Harveian librarian, Dr. J. F. Payne, of his Fitz-Patrick lectures, of his introduction to the reprint of the Cambridge edition of Linacre's Latin version of the 'De Temperamentis' of Galen, of his numerous contributions to the history of epidemics, of his admirable biography of Linacre, and of his many medical lives in the *Dictionary of National Biography*, to convince you that the history of medicine is not neglected among the present Fellows of this College.

A few months ago, while watching the excavations necessary for the foundations of the new out-patient rooms of St. Bartholomew's Hospital, I saw dug up from many feet below the surface a piece of Samian ware and a coin of the Emperor Nero. Some few days later another coin of the same emperor was found. These bronze dupondii had been used in that commerce of which their contemporary, Tacitus, speaks in the first passage in literature which contains the name of the famous city in which we live. 'At Suetonius mira constantia medios inter hostes Londinium perrexit, cognomento quidem coloniae non insigne, sed copia negotiatorum et com meatuum maxime celebre.' Such relics of the business trans-

actions of the empire and the numerous examples of mosaic pavements, of Roman inscriptions, pottery, glass and coins discovered at various times throughout the city, as well as the fragments of Roman walls and roads, help us to realize that in the time of Galen London was within the sphere of influence of Roman civilization.

London had some share, however small, in the intellectual life of Rome, and through Rome felt the influence of ancient Greece in literature and in science. There is nothing improbable in the supposition that men who had consulted Galen as to their health may have walked along the Roman causeway in Cheapside on which, fifteen hundred years later, Wren placed the foundations of the present tower of the church of St. Mary-le-Bow, or may have watched the Britons bringing products of fishing or of the chase up Walbrook from the Thames in skin-covered wicker boats. The tides of the world's mind ebb and flow, but however great the ebb some tide-marks generally remain showing where the waves of intellect have been. Among the few traces left of the intellectual life of the Romano-British period are the Confession of Patrick and the Epistle against Coroticus. The 'imperitia' and 'rusticitas' of which the writer complains take nothing from the interest of these compositions as the authentic literary remains of Britain in the fifth century. The letter in which Quintus Cicero, writing from the camp of Julius Caesar, mentions Lucretius, is the first indication of the spread of the literature

of the civilized world to our island, while the Confession of Patrick and his Epistle to the Christian subjects of Coroticus seem the last remains of living literature of the classical period in Britain. When the son of Calpurnius set forth on his missionary travels the legions had already been withdrawn, and the tribes from whose union the English nation is mainly derived were pouring into Britain, making settlements after their own manner and destroying the Romano-British civilization.

Kent and Sussex, Essex and East Anglia, Wessex, Mercia, and Northumbria were carved out of Britain, kingdoms still marked in the vowel sounds and accents of their natives, as we may observe them in the out-patient rooms or wards of our hospitals. After constant wars a *Rex Anglorum* arose strong enough to maintain his supremacy, and an Anglo-Saxon nation was formed and grew in strength. My learned predecessor in this lectureship has shown what progress was made in science, and has maintained that the medicine of the Anglo-Saxons was not unworthy of the countrymen of Cædmon, of Bede, and of Alcuin. The Norman Conquest placed England once more in direct and constant relation with the rest of the Western world, and for more than a century London was a city in which foreign influence predominated. Though the Conqueror granted a charter, still preserved in the custody of the City at Guildhall, to Deorman, a prominent Saxon of London, and though the districts which ultimately made up the City and which were very



early called wards were presided over by men with the Saxon style of Alderman, it is nevertheless clear that soon after the Conquest the chief influence in London was not that of the Saxons. The bishops of the see, the deans of St. Paul's, the canons of that cathedral, the deans of the College of St. Martin-le-Grand, many of the secular clergy, the magnates of London, the officials of the Exchequer, and the justiciars were almost all of Norman, or French, or Breton, or Italian birth or descent. The charters of the time show the predominance of foreigners by the way in which the preambles often mention the French first. A grant to St. Bartholomew's Hospital, made in London by John, Earl of Moreton, afterwards King John, on the eve of All Saints, 1193, begins: '*Johannes comes Moretonie omnibus hominibus et amicis suis Francis et Anglis presentibus et futuris salutem.*' Another somewhat earlier charter of a great landowner in Essex begins: '*Serlo de Marci omnibus hominibus suis Francis et Anglis presentibus et futuris salutem.*' And another, written in London and copied into the cartulary of St. Mary of Dunmow,<sup>1</sup> uses a similar form: '*Walterus filius Roberti omnibus sancte matris ecclesie filiis et omnibus hominibus suis Francis et Anglis salutem.*' The civil institutions of London assumed a French complexion, and the terms '*Communa*' and '*Mayor*' were introduced from France.

I have dwelt upon this close relationship with France because it has an important bearing on the

<sup>1</sup> Harley 662, f. 12 b.

nature of our early hospitals. In this time when foreign influence was predominant in London, while the great English nation of the future was slowly being formed, physicians are now and then mentioned in records still extant. King Henry I had a physician named Grimbold, who appears as a witness in a very solemn charter of 1105,<sup>1</sup> in which Henry, King of the English, with the consent of Matilda his wife, grants ten hides of land in Lifesholt to the abbey of Abingdon. The witnesses' names succeed their crosses or marks, and begin with 'Ego Henricus rex redicionem et donacionem hanc signavi', Ranulf, Bishop of Durham; John, Bishop of Bath and Wells; Hervey, Bishop of Bangor; Robert, Bishop of Lincoln; Roger, Bishop-elect of Salisbury. William de Werelwast, Waldric the king's chancellor, are witnesses, and their names are followed by the physician's attestation: 'Ego Grimboldus medicus interfui.' Three seneschals or dapifers, important officers in the royal court, come next—Eudo, Roger Bigod, and Haimo. Three other witnesses follow, Urs de Abetot, Walter, son of Richard, and Roger de Oilei, the constable. Another grant of the same king to the same abbey, giving a hospice in Westminster Street, London, to the abbot, has as its witnesses Grimbold the physician and Nigell de Albini. It was made at Windsor.<sup>2</sup>

The next charter in the beautiful register of the abbey of Abingdon<sup>3</sup> is addressed to Richard, Bishop

<sup>1</sup> Claudius C. ix, f. 159 a (British Museum).

<sup>2</sup> f. 150 a.

<sup>3</sup> ib.

of London, and grants land to the abbey. Its first witness is that Roger, Bishop of Sarum, who afterwards took so active a part in the early wars of King Stephen, and the fourth is Grimbald the physician. It was witnessed at Westminster. Another charter of Henry I<sup>1</sup> to the same abbey, addressed to the sheriff of Oxfordshire and executed at Romsey, is witnessed by the chancellor and by Grimbald. Yet another charter addressed by the king from Woodstock to Herbert, Bishop of Norwich, the builder of the present choir and transepts of Norwich Cathedral, has for its first two witnesses Ranulf the chancellor and Grimbald the physician.<sup>2</sup> A grant of Queen Matilda<sup>3</sup> to Faritius the abbot and the abbey of Abingdon is witnessed by Roger the chancellor (afterwards Bishop of Salisbury) and Grimbald the physician. An ordinance<sup>4</sup> of King Henry I issued from Oxford, addressed ‘Omnibus constabulariis et omnibus fidelibus suis de curia’, orders that no one shall stay at Abingdon without the abbot’s leave, and its sole witness is Grimbald the physician. A charter of Henry I<sup>5</sup> about land at Winchfield belonging to the abbot of Abingdon is witnessed at Northampton by Roger Bigot and Grimbald the physician. Another deed addressed to Nigel de Oilley is witnessed by Grimbald. Thus it is clear that Grimbald lived in the royal court and travelled about with the king. Two charters of the reign of Henry I, now at St. Paul’s Cathedral,

<sup>1</sup> Claudius C. ix, f. 149 a.

<sup>3</sup> f. 145 b.

<sup>4</sup> f. 151 a.

<sup>2</sup> f. 147 b.

<sup>5</sup> f. 152 a.

mention other physicians of the time. William, Dean of St. Paul's, granted to John, the physician, and his heirs some land in Aldermanesburi at a rent of three shillings a year, eighteen-pence at Easter and eighteen-pence at Michaelmas. The last witness is Gilbert the physician. William was Dean of St. Paul's from 1111 to about 1136,<sup>1</sup> so that Aldermanbury may be regarded as the earliest recorded residence of a physician in London. It is clear by the position of the physician among the witnesses and by the absence of any indication of clerical office that Gilbert was a layman.

Another charter, also at St. Paul's, mentions a physician who, like our founder Linacre and our original Fellow Dr. Chambre, was in holy orders. It is an agreement made about 1127 between William the Dean and the Canons of St. Paul's, and William de Marci. After Otuel, son of the earl, Hugh de Redvers, Aldewin the queen's chamberlain, and Giffard the chaplain, Clarumbald,<sup>2</sup> physician and chaplain, occurs as a witness, followed by nineteen other witnesses. The first large monastic foundation in London was the Augustinian Priory of Holy Trinity, Aldgate, and its cartulary is preserved in the varied collection of books and antiquities which William Hunter bequeathed to the University of Glasgow. It contains a copy of a charter addressed to the Bishop of London by Geoffrey de Mandeville, the Earl of Essex, who died in 1144, the remains of whose castle of Pleshy

<sup>1</sup> *Hist. MSS. Com.*, Ninth Report, p. 67.

<sup>2</sup> *Ib.* p. 66.



may still be seen in Essex. He was chief constable of the Tower, and in this charter he restores to the Priory of Holy Trinity a mill and some land next the Tower which he had taken from them. The first witness of this charter is his wife, Rohaisia, and the last two are Ernulf the physician and Iwod the physician. Mr. J. H. Round in his *Geoffrey de Mandeville* conjectures that the presence of these two physicians and of a Templar indicates that the restoration was made when this earl, who was one of the great lords who made the state of England intolerable in the reign of Stephen, was on his deathbed, slowly dying from an arrow wound in the head. This document, though connected with London by its address to the bishop, was probably attested near Burwell where the earl lay.<sup>1</sup> A charter written later in the same century was undoubtedly attested in London and by a London physician. It chances to be the earliest document relating to St. Bartholomew's Hospital in which a physician is mentioned, and is a grant of some land on the south side of Newgate Street in London from Gilbert, prior of the Augustinian canons of Butley in Suffolk, to the brethren of the hospital, written between 1186 and 1189. The physician is the last of nineteen witnesses to this charter. Hubert Walter, Dean of York, is the first witness, who, though not a physician, was a man of science. This great man was a baron of the Exchequer in

<sup>1</sup> J. H. Round, *Geoffrey de Mandeville*, p. 101, where the charter is printed from the transcript in the Guildhall.

1184, became Dean of York in 1186, and in 1189 Bishop of Salisbury. He went to the Holy Land with Richard Cœur de Lion and was one of the first band of pilgrims admitted by the Mussulmans to the Holy Sepulchre. In 1193 he became Archbishop of Canterbury and Chief Justiciar of England. In May, 1194, when Richard, after his release, left England, Hubert Walter was left as chief governor of the country. Having thus risen to the highest rank as an ecclesiastic, a statesman, and a lawyer, in November, 1197, he appears in the chronicles as a man of science, the first reformer of the standards of England. He engaged in the difficult task of making uniform throughout the realm all weights and measures, whether of capacity or of length, every measure of wine and of cloth.<sup>1</sup> His ordinance, like many similar enactments of later times, failed to produce the uniformity intended, owing to the tenacity with which men adhere to the familiar things of the household, the farm, and the market.

A charter in the British Museum relating to the hospital of St. Cross at Winchester,<sup>2</sup> dated April 10, 1185, of which the first witness is King Henry II himself, 'Henrico illustri rege Anglorum,' and which is also witnessed by Hubert Walter, has two physicians among its witnesses, 'Magistris Hamone

<sup>1</sup> Matthew Paris (Rolls Series), ed. Luard, vol. ii, p. 442; Hoveden (Rolls Series), ed. Stubbs, vol. iv, p. 433.

<sup>2</sup> Printed with facsimile in Warner and Ellis, *Facsimiles of Charters*.

et Ricardo medicis.' King Henry was going abroad with Heraclius, the patriarch of Jerusalem, and Roger de Molins, Master of the Hospitallers, and these physicians were accompanying him, and were not the attendants of the Hospital of St. Cross; that hospital, indeed, was from the first intended as a refuge for the relief of poverty and not of sickness. Its inmates are called not *infirmi* but *pauperes*. In this charter Richard, formerly Archdeacon of Poitiers and a distinguished official of the Court of Exchequer, but then Bishop of Winchester, increases the number of the poor to be relieved from one hundred and thirteen to two hundred and thirteen. The seals attached to this fine specimen of the penmanship of its period are perfect, and on one of them is a figure in a canopied bed with a large bolster, a representation of a twelfth-century bed such as the poor of that hospital and the patients of other hospitals of that time may have occupied.

Master Ranulphus Besace, a contemporary of Dr. John of London, who was physician to King Richard I in Palestine and afterwards lived to old age in London, related to Matthew Paris how when Saladin took the Prince of Antioch prisoner<sup>1</sup> he was sent to try to arrange his release. Saladin was sitting in his court, and the captive Christian knight was led in with his arms bound. 'What,' said Saladin, 'would you do to me were I your prisoner as you now are mine?'

<sup>1</sup> Luard (Matthew Paris: Rolls Series) conjectures that Reginald de Chatillon was the prisoner.

'I would cut off your head and do it myself, because, though an infidel, you are some kind of king,' said the Christian knight. Saladin said, 'And I will decapitate thee, intemperate fellow,' rose, and asked for his sword. 'Take, dog, this my head, thou shameful hairy-bearded, lean-faced, and vile-eared Pagan; for myself, I have no more to say than that I commend my soul to God.' Saladin said, 'Oh! obstinate, not even in dying shalt thou prevail,' and with a light blow cut off his head. Dr. Ranulphus Besace, who witnessed this terrible scene, lived to the middle of the reign of Henry III, and filled the stall of Newington in St. Paul's Cathedral. Matthew Paris also knew a Dr. Reginald at St. Albans.

John of Hertford was elected abbot of St. Albans on March 27, 1235, and Matthew Paris, then himself a monk of that abbey, records that two monks, both in priests' orders, were sent to Rome to obtain confirmation of the election. One of these was Magister Reginaldus Physicus. They took formal letters with them, and later in the year came back with the document they sought from Pope Gregory IX. In the obituary of the abbey of 1212-53 it is noted that this Reginald, physician and priest (*physicus, sacerdos*), died on Sept. 21, 1251. Matthew Paris in 1255 records the death of three trusted officials of the queen of King Henry III<sup>1</sup>—Robert Muscegros, her seneschal; Walter de

<sup>1</sup> Matthew Paris (*Rolls Series*), ed. H. R. Luard, vol. iii, pp. 407 et seq., and vol. vi, p. 269.



Bradele, her treasurer ; and Master Alexander, her physician, 'three men worthy of the highest praise.' Queen Eleanor had also another physician, Magister Reginaldus de Bathonia.<sup>1</sup> She sent him to see her daughter, the Queen of Scotland, and when he came 'ad castrum puellarum quod vulgariter dicitur Edenbure', he showed his letters to the Scottish court and was well received. He asked the young Queen, when he had a private audience, why she was so pale and depressed, and she admitted that the Scots did not treat her kindly. He reproved them for their treatment of her. After a few days he fell ill and took to his bed, so that some said he was poisoned. When he knew he was dying he wrote to the King and Queen of England, and said that he had come to Scotland on an unhappy day, and that the queen was inhumanly treated by the Scots. Matthew Paris evidently did not admire the physician, for he says : 'Magister autem physicus cum virus discordie et magni venturi mali et dampni irrestaurabilis evomisset animam miseram exhalavit.'

In a charter belonging to St. Albans Abbey and of about the year 1259 of John, son of Alexander the carpenter of Walthamstede, the seventeenth of nineteen witnesses is Adam the physician, and he is followed by William, his son. Another charter of the same period in the same register is that of John, son of Walter, granting a rent of six shillings to St. Albans Abbey. William the physician is the sixth

<sup>1</sup> Luard : Matthew Paris (Rolls Series), vol. v, p. 501.

of the twelve witnesses, and it seems possible that this is the son of Adam the physician.

Matthew Paris, friend of King Henry III and of many magnates of the realm in church and state, and living in the greatest abbey of England in the midst of the intellectual life of the time, knew personally five physicians, and may have seen two more. From the writings of this historian we can draw up a sort of Medical Register of the time of King Henry III.

Adam, physician practising at St. Albans.

Alexander, physician to Queen Eleanor of Provence.

Bathonia, Reginald de, physician to Queen Eleanor of Provence; sent on a mission to the court of Scotland.

Besace, Ranulphus, Canon of St. Paul's (1217-43). Served in the crusade with King Richard I, and sent as envoy to Saladin.

John de Sancto Egidio, doctor of medicine, doctor of laws, doctor of theology, a Dominican, studied at Paris and at Montpellier, professor at Paris and at Oxford; sometime physician to the King of France; physician to the Bishop of Lincoln.

Reginald, physician; a priest resident in St. Albans Abbey, sent on a mission from the abbey to Rome (1235-51).

Richard de Wendover, physician, Canon of St. Paul's.

William, physician at St. Albans, son of Adam the physician.

That physicians were not numerous in London is suggested by the rarity with which they occur as witnesses in London charters in the long reign of

Henry III. It is clear that considerable attainments were necessary before a man was styled *medicus* or *physicus*. His study chiefly consisted in reading books and hearing lectures on books in the university. Most learned men had read some medicine, or knew something about it; and some ecclesiastics had specially devoted themselves to a study the use of which was so suitable to their profession. Of this kind was the abbot of Crokestone '*in arte medicina erudito*', who attended John in 1216 at Newark. The king had been marching through Suffolk and Norfolk, ravaging the districts which had shortly before yielded to Lewis of France, and reached the abbey of Swinestead in Lincolnshire, where he slept. He was deeply dejected by the loss of his baggage and treasure in quicksands. He had severe rigors, '*acutis correptus febribus*,' yet, hungry after the march, ate a large meal and drank much new beer. His temperature continued to rise, '*febrilem in se calorem acuit fortiter et accendit*.' Next day, nevertheless, he went on to the castle of Sleaford. After a night there he was drawn in a horse litter to Newark. He took to bed and was conscious enough to receive the Holy Eucharist and afterwards to nominate his son Henry as his heir, and to order the Great Seal to be affixed to letters patent addressed to the sheriffs and castellans of the realm commanding them to be '*ei intendentes*'. He was obviously getting worse, and the abbot of Crokestone in guarded terms asked him where he wished

to be buried should he die. The king, speaking no doubt in French, said, 'To God and St. Wulstan I recommend my body and soul.' This seems to have been on St. Luke's day, and he died the night following. His illness, thus terminating within a week and beginning with a violent rigor and aggravated by his moving on from Swinestead instead of staying in bed, may have been acute pneumonia or an acute gastro-enteritis, aggravated by exhaustion, mental and physical. The abbot of Crokestone, '*qui Medicus regis tunc temporis extiterat*,' made a necropsy, '*facta anatomia de corpore regio*,' not for pathological purposes but '*ut honestius portaretur*'. He carried the viscera to his own religious house, and there honourably buried them. The body with its proper ornaments was borne to Worcester, where the royal tomb may be seen to this day.

Robert Grosseteste, Bishop of Lincoln from 1235 to 1253, knew Greek as well as Latin, and in his extensive reading he had not neglected medical books and was able to apply his knowledge. To a preaching friar whose health was imperfect he recommended sufficient food, proper sleep, and good humour, clearly having in his mind the lines of the School of Salernum :

*Si tibi deficiant Medici, Medici tibi fiant*

*Haec tria : mens hilaris, requies, moderata dieta.*

He advised another friar, who had a tendency to melancholia, to take a cup of good wine ; and his insistence on its quality, when his own ascetic life and the context are considered, shows that he had



another verse of the 'Regimen Sanitatis Salerni' in his thoughts :

Gignit et humores melius vinum meliores.

After a prescription in a fourteenth-century manuscript (Mirfield) is written : 'Et dicitur hoc esse per Robertum Grosseteste Episcopum Lincolnensem.' We may be certain that Grosseteste had read the chapter on medicine in the *Liber Etymologiarum* of Isidore of Seville. His chief friend was a physician, Dr. John of St. Giles (de Sancto Egidio), sometimes called John of St. Albans. The libraries of monasteries and cathedrals always contained books on medicine, and as reading was thought the chief source of medical knowledge books were even more important to a physician in the Middle Ages than they are at the present day. The catalogue of the library of Chaucer's physician is familiar to every one :

Well knew he the olde Aesculapius,  
And Deiscorides and eek Rufus,  
Old Ypocras, Haly and Galien ;  
Serapyon, Razis and Avycen ;  
Averrois, Damascien and Constantyn ;  
Bernard and Gatesden and Gilbertyn.

Some such book as *Trismegistus ad Asclepium*, one leaf of which begins with the words 'Asclepius iste pro sole', was perhaps in Chaucer's mind when he placed Aesculapius in the list. A copy of *Trismegistus* was in the library of Dover Priory, and the same library, which had in it some one hundred and eighteen medical treatises, contained amongst them

works of Hippocrates, Galen, Rhazes, Bernard, and Gilbert, as is shown by the catalogue of the library written in 1389 and thus almost exactly contemporary with the *Canterbury Tales*. The library of St. Augustine's Abbey at Canterbury contained ten of the fifteen authors mentioned by Chaucer in its collection of two hundred and thirty or more medical works. Aesculapius, Rufus, Averrois, Damascien, and Gatesden are the writers who were not in the library. The catalogue was written towards the end of the fifteenth century. The catalogue of the library of Christ Church, Canterbury, contains over two hundred and eighty medical treatises, including nine of those of Chaucer. The catalogue was written in the time of Prior Henry de Estria, whose name is familiar to every visitor to Canterbury at the present day from the beautiful stone screen with finely proportioned geometrical tracery with which he enclosed the choir of that noble church. De Estria ruled from 1284 to 1331, so that he had been prior for twenty years before two of the authors in Chaucer's list had risen to fame. Bernard and Gatesden, Aesculapius, Serapion, Rufus, and Gilbert are the others absent in the Christ Church library. These three catalogues have been printed by Dr. Montague Rhodes James, whose learning may, we hope, long continue to produce works which add so much to the fame of the University of Cambridge, and of the ancient foundation of which he has recently been elected the head—a foundation of one member of which, Henry Bradshaw, I should indeed

be forgetful if I did not express my gratitude when lecturing on my subject of to-day, since he first opened to me the stores of mediaeval literature.

At St. Paul's Cathedral a solitary manuscript of Avicenna remains, given to it in May, 1451, by John Somerset, Master of Arts and Doctor of Law, Chancellor of the Exchequer of England. Reading and hearing lectures were the chief means used to acquire medical knowledge, but hospitals existed which contained patients with various diseases and so gave opportunities for observation.

Jacobus de Vitry, Bishop of Acre in Palestine and a cardinal, in his *Historia Occidentalis*,<sup>1</sup> written about 1220, shows the nature of the hospitals of his time in France and consequently of similar institutions in England. He is giving an account of the state of society in the West of Europe: 'There are, moreover, very many associations of men and of women renouncing the world and living by rule in houses of lepers or hospitals of the poor, humbly and devotedly ministering to the poor and the sick. They live according to the rule of St. Augustine. . . . These servants of Christ, sober and sparing towards themselves, and rigid towards their own bodies, abound in compassion towards the poor and sick, and at once minister to them all necessities to the best of their ability. For Christ's sake they bear the filth and impurities of the patients and the

<sup>1</sup> Iacobi de Vitriaco, *Primum Acconensis deinde Tusculani Episcopi: libri duo quorum prior Orientalis sive Hierosolymitanae, alter Occidentalis Historiae nomine inscribitur*. Duaci, 1597.

annoyance of almost unbearable smells.' He ends with a eulogium of several good hospitals and says that they are 'a refuge to the poor, an asylum for the wretched, consolations for the mourning, nourishment for the starving, a kindness and diminution of suffering for the sick'. The societies following the rule of St. Augustine were often devoted to the care of the poor, the sick, and the leprous. The frequent contrast in their statutes<sup>1</sup> between *sani* and *infirmi* shows that the sick, and not merely, as has sometimes been supposed, the poor were their care. The statutes of the hospital of Angers (Hôtel Dieu), founded in 1175, ordain that messengers shall be sent twice a week through the town seeking sick persons to be admitted. If it chances that at the gate any sick man be found desiring admission the porter, if a brother (as we should say, one of the staff), shall admit him. If not, he shall send word to the prioress and she shall come at once or send another sister, one not hard or rough but kindly, and she, if the patient ought to be received, shall admit him. After he has confessed his sins and received the Holy Communion, if with due devotion he desires it, he shall be carried to bed. The brethren and sisters and the poor are to have the same bread and the same wine, unless the weakness of the sick should require better bread and better wine. The following persons are not to be admitted to the hospital: lepers, permanent cripples, blind, thieves whose hands and feet have

<sup>1</sup> Le Grand, *Statuts*. Paris, 1901.



been lately cut off, or foundling children. Lying-in women are to be received and cared for till well. The statutes of the Hôtel Dieu of Amiens of the year 1230 mention that the patients may stay in the hospital seven days after they are convalescent if they wish. These passages are sufficient to prove that in France, including the French dominions of the English kings, there were hospitals containing such patients as are to be found in our hospital wards at the present day.

In England it is clear that many hospitals were from the first intended for the care of the sick and maimed as well as of the poor. A few were restricted to some particular kind of poor person, just as the leper hospitals were restricted to a particular kind of patient. Several ancient records indicate that St. Bartholomew's in London was arranged on the same plan as the French hospitals. A husband and wife, for example, might be received as a brother and a sister of the hospital. Ralph de Quatremares and Albreda his wife in the reign of John gave to St. Bartholomew's Hospital a holding which they held of Westminster Abbey, next the church of All Hallows in Bread Street, with the house on it and all its contents, as well as an orchard which they held of the church of St. Paul, in free and perpetual alms. 'And if poverty should come upon us the brethren of the aforesaid hospital shall minister to us all necessary things as if we were a brother and sister of the hospital in our own house, and further when it pleases us they shall

receive us into their society.' This last clause may be compared with a statute of the Hôtel Dieu of Troyes (*domus Dei comitis trecentis*) drawn up in 1263. '*Nullus recipiatur cum uxore sua nisi per dispensationem.*' This statute shows that in earlier times it had been customary to receive a husband and wife as stipulated by Ralph and Albreda de Quatremares in London, and with other resemblances in organization justifies the view that the hospitals under the care of the Augustinian order in France and England were foundations identical in function. Some hospitals in England before the dissolution had become simply homes for poor men and women who had no other infirmity than that of age, but many continued to treat the sick. A passage in the Close Rolls of Edward III (March 5, 1341) shows that St. Bartholomew's Hospital was one of these. It was, '*Ad omnes pauperes infirmos ad idem hospitale confluentes quousque de infirmitatibus suis convaluerint ac mulieres pregnantibus quousque de puerperio surrexerint, necnon ad omnes pueros de eisdem mulieribus genitos usque septennium, si dicte mulieres infra hospitale predictum decesserint.*' The last part of this extract from the Close Rolls shows that in the Middle Ages the benefits of the revenues of a hospital were not always restricted to the sustenance and treatment of patients, but were sometimes extended to the support of orphans whose mothers had not survived their birth. This was naturally done '*caritatis intuitu*', as the old charters say, just as equally at

the prompting of charity we add museums and other means of increasing knowledge, and so relieving not only the patients of our own hospital, but sick men all over the world in ages to come as well as in our own time. A passage in the will of the charitable Gilbert Chaumpneys,<sup>1</sup> dated 1375 and preserved at St. Paul's Cathedral, suggests that there were patients, in our sense, in the hospital of St. Thomas the Martyr in Southwark, which now flourishes in Lambeth under the tutelage of St. Thomas the Apostle. Chaumpneys left a shilling to every leper in London, three beds with linen to the hospital of St. Mary without Bishopsgate, and three to St. Thomas's, and sixpence to every sick person (infirmus) in each of these hospitals. This charitable man also left sixpence to every prisoner in Newgate, and twenty pounds to get debtors out of Newgate, twenty shillings to the prisoners in the Marshalsea and the same to those in the King's Bench, twenty shillings to every nun in the convent of Sopwell, with gifts to other nuns and to St. Paul's Cathedral, to fifteen parish churches, and to the fabric of a bridge in the country.

The writings of John Mirfeld, the author of the treatise on medicine entitled *Breviarium Bartholomei*, show the nature and extent of the studies of a physician of the fourteenth century.

Mirfeld belonged to the period when the practice of medicine was sometimes exercised by a layman, sometimes by an ecclesiastic; when medical books

<sup>1</sup> *Ninth Report on Historical MSS.*, 1883, p. 47.

were to be found in most libraries, and when in London there were some hospitals in which diseases were treated and might be observed. He was a resident in the convent of St. Bartholomew in Smithfield. This priory was founded in the reign of Henry I, shortly after the hospital of St. Bartholomew, by Rahere, the founder of both. The priory had certain relations to the hospital, of which the most important were that the brethren of the hospital had to present their master on his election to the prior and canons for confirmation, and must obtain the same consent for the admission of members into their society, and that a certain share of the food and drink left by the canons must be given to the hospital. In his medical writings Mirfeld speaks of 'magister meus', his instructor in the practice of medicine. His master operated, he says, in an original way in a case of hydrocephalus in a girl. He rubbed in sulphur ointment twice a day and then bound a bandage of warm wool on the girl's head, and kept it there a month or more. Then he tapped by a cautery in front; water came out slowly. After a time he did the same at the back of the head, and more water came out. In less than a year the girl was well. He closed the wounds with tents. Mirfeld's master was called to a man in gaol who had stabbed himself, so that when he swallowed, food and drink and air came out of the wound. He joined the parts of the wound carefully, and covered the place with powders and bandages. The man recovered within a month.



His master treated a woman who had lost her speech. He rubbed her palate with a preparation known as theodoricon emperisticon and with a little diacastorium. She recovered her speech and bore witness to his skill. Was this a case of hysterical aphonia? An apothecary brought to his master a youth with a carbuncle on his face. His whole neck and throat were swelled beyond belief, and the sick man had already tokens of death; he had no pulse and was fainting. The master said to that apothecary that the youth should go home because he was about to die in a short time. The apothecary said, 'Is there no further remedy?' The physician replied, 'I believe most truly that if thou wert to give tyriacum in a large dose there would be a chance that he might live.' Having heard this, the apothecary took the youth home, though barely able to get him there, and he gave to him about two drachms of tyriacum and put him to bed. The youth's head and the affected part broke into profuse perspiration, and after a little there was a general perspiration and his pulse returned. And the apothecary gave him the dose again of his own accord, and that day he was made whole except for a little sore place which afterwards healed up, 'and my master said that he had never seen anyone else who had recovered after being in a faint and tremor, and especially without pulse.'

It is clear that Mirfeld's master was a physician, and that, like Chaucer's doctor of physic—

Ful redy hadde he his apotecaries  
To send him dragges and his letuaries.



The tyriacum which his master used was a preparation attributed to Mithridates, King of Pontus, which from the Augustan age to the eighteenth century was used by physicians. It did not come from Mithridates, says Quintus Serenus Sammonicus, for when that king was vanquished by Pompey, the medicine found in his casket was worthless :

Antidotus vero multis Mithridatia fertur  
Consociata modis, sed Magnus scrinia regis  
Quum raperet victor, vilem deprendit in illis  
Synthesin, et vulgata satis medicamina risit,  
Bis denum rutae folium, salis et breve granum,  
Juglandesque duas, totidem cum corpore ficus.

Mithridatium, afterwards called Theriaca, contained opium. It began with thirty-eight ingredients, then had fifty-three, and later still seventy-five, and continued to be made and prescribed long after the identity of many of its ingredients had been lost. Dr. William Heberden, one of the greatest of English physicians, wrote in 1745 an essay entitled *Antitheriaca*, relating its history and attacking its use.

From another passage in the *Breviarium* it may be inferred that Mirfeld had studied at Oxford. One Master Nicholas Tyngewich, he says, related in his lecture theatre at Oxford that he rode forty miles to an old woman, who had cured innumerable men of jaundice, and gave her a sum of money for teaching him her method of treatment. This seems like the statement of one who had heard the lecture. Nicholas Tyngewich was King Edward I's physician, and he is mentioned in two documents of 1306. One is the king's request that he may be

allowed to hold the living of Reculver, and the other Pope Clement V's letter confirming the presentation. His name also occurs in a charter of the same period at St. Paul's Cathedral.<sup>1</sup> The late Mr. J. L. G. Mowat, who edited in the *Anecdota Oxoniensia* in 1882 the *Sinonima* or glossary, the only part of Mirfeld's works which has been printed, points out that John Mirfeld represented the convent of St. Bartholomew in 1392 and 1393. Mr. E. A. Webb has shown that in 1379 Mirfeld was taxed as a layman living in the priory. He was in 1390 granted a chamber on the south side of the church, and was a liberal benefactor of the priory.<sup>2</sup> His chief medical work, as is shown by the calendar which is attached to it in its finest copy, was written before the year 1387. If Mirfeld was at Oxford when sixteen years old, a not uncommon age for university life at that time, and if at the time he appeared as one of the seniors of the Priory of St. Bartholomew he was about seventy years old, he may easily have attended the medical lectures of Nicholas Tyngewich between 1336 and 1340.

The general impression left after reading his medical writings is that Mirfeld's master was a layman, and that it was after the beginning of his medical studies and his university career that

<sup>1</sup> H. C. Maxwell Lyte, *Ninth Report on Historical MSS.*, 1883, p. 10.

<sup>2</sup> Information from the Clerical Subsidy Roll and the Patent Rolls, kindly given to me by Mr. E. A. Webb.

Mirfeld entered the convent of St. Bartholomew of Smithfield. Yet his theological reading is so extensive that he must have for a long time led a studious and probably a monastic life. The course of his studies was perhaps similar to that of John of St. Giles, that learned Englishman of the reign of Henry III, who was physician to Bishop Robert Grosseteste of Lincoln. John of St. Giles studied at Oxford, and then at Paris and at Montpelier, where he pursued medicine, and with such distinction that he became physician to Philip Augustus, King of France. He lived in Paris in the hospital of St. James, which he had bought, and later gave it to the Dominicans, hence called in Paris Jacobins. It was the meetings of a section of the Revolutionists there which had led to the use of the word Jacobin in a sense so very different from that which it had for several centuries. He was no doubt in holy orders, as he became a doctor of divinity and lecturer on philosophy and theology as well as on medicine. About 1222 he became a Dominican, and is said to have been the first Englishman to join that order. He came back to England in 1235, and stayed here till his death, which took place in or soon after 1258. He became an intimate friend of Robert Grosseteste, Bishop of Lincoln. Their relations were chiefly ecclesiastical, but John was certainly Grosseteste's physician, attended him when he was supposed to be poisoned, and was sent for by the bishop in his last illness. Matthew Paris, who had probably known John,





Breuiarium  
Barlô.  
Lom.

Emitt d. 1573 Anno d. 3  
A. Rufina m. C. C.



says that he was an elegant scholar and teacher, skilled in medicine and in theology. Mirfeld, like John, began life in the study of medicine, and was always devoted to it, but after his youth he became also a learned theologian and a member of a regular order.

That Mirfeld knew something of the patients in St. Bartholomew's Hospital seems certain from some passages in his works. Leland (1505-52) in his *Commentarii de Scriptoribus Britannicis* mentions having a conversation with 'Bertholetus medicus', who had certainly studied the medical writings of Mirfeld. This Bertholetus was Dr. Richard Bartlot, an Oxford man, who was the first Fellow elected into our College (March 12, 1523), and whose learning Caius praises. He was President in 1527, 1531, and 1548. He died in 1556-7, aged eighty-six years. The President, Dr. Caius, and the College attended his funeral in the church of St. Bartholomew the Great. This was in the reign of Queen Mary, when that church, from which the Augustinian canons had been expelled under Henry VIII, was in the hands of the Dominicans. Bartlot had read the very copy of Mirfeld's book now at Pembroke College, Oxford: indeed, it seems to have belonged to him, for on a blank leaf of it is written, 'Richard Bartlot in Medicinis doctor.' The *Breviarium Bartholomei* is Mirfeld's greatest work, and as the first book on medicine in any way connected with the oldest hospital in London deserves particular consideration. I have examined

two complete copies of the work : one in the British Museum and one in the library of Pembroke College, Oxford, as well as some fragments of a third copy also in the British Museum. The Oxford copy is in its original binding. The manuscript begins with a calendar, which with some scattered notes occupies the first nineteen leaves. The *Breviarium* then has an illuminated page. At the foot of the page is a shield of arms : argent four martlets and a cross, and at the top of the page is a saint in a dress of camel's hair, and with a lamb in his left hand, obviously St. John the Baptist. These ornaments show to whom the manuscript originally belonged, for the arms are those of the abbey of Abingdon, and at the gate of the abbey was a hospital dedicated to St. John the Baptist. The possession of such a book by it is a sign that it was not, as it afterwards became, a mere almshouse, but was a hospital for the sick. I had the opportunity of examining the manuscript during several successive weeks in the rooms of the late Professor Henry William Chandler, a Fellow of Pembroke College, and Waynflete Professor of Moral Philosophy at Oxford.

I ought here to express my gratitude to this most learned man, who died in 1889, for his literary hospitality to me. His profound knowledge of Aristotle, his attainments in bibliography, and his untiring devotion to study were well known at Oxford. His stores of mediaeval learning, his thorough acquaintance with English literature, his



[illegible]

potestas octava

End of Part I and beginning of Part II, with verses indicating how to find the author's name.

*To face page 33.*



interest in human nature, and his kindly disposition made his conversation as delightful as it was full. After my perusal of the *Breviarium Bartholomei* I enjoyed his friendship to the end of his life. When I visited Oxford I always went to see him and noticed on each occasion that before our conversation had lasted five minutes I had learned something hardly to be attained anywhere else, and that however long his conversation continued it was rich in learning throughout. The British Museum copy of the *Breviarium* is also a fine manuscript, though not so large as that of Pembroke College. On folio 21 *b* is a note which has not hitherto been observed:—

Ordine pretacto si connumereres capitales  
Nomen factoris demonstrabunt tibi tales.

Following this injunction the capital letters from folio 21 *b* make the words: ‘Ora pro nobis sancte bartholomee ait iohannes dde Mirfeld ut digni efficiamur promissionibus Cristi.’ There are slight variations in the text of these two copies. Both belong to Mirfeld’s lifetime. The index of the Oxford copy is headed with a fine illuminated ‘I’ and the words: ‘Incipit tabula libri Johannis Mirfeld quem ipse composuit et Breviarium Bartholomei vocavit; compilavit in monasterio sancti Bartholomei London eundemque divisit in partes quindecim.’ The first of the fifteen parts is of fevers; the second of affections of the whole body; the third of affections of the head, neck, and throat; the fourth of the chest; the fifth of the abdomen; the sixth of the pelvic organs; the seventh of the



legs ; the eighth of boils ; the ninth of wounds and bruises ; the tenth of fractures and dislocations ; the eleventh of joints ; the twelfth of simple medicines ; the thirteenth of compound medicines ; the fourteenth of purgatives ; and the fifteenth of the regimen of health. As in most mediaeval systems of medicine the part on fever follows the general arrangement of the subject in Galen. Mirfeld's chapter ' *De febribus pestilencialibus* ' <sup>1</sup> begins with the statement that such epidemics come in rotten and sterile seasons when the crops are blighted and the air and water corrupted, so that they infect human bodies. The infected air goes to the heart and round the whole body, and to it is added infected food and drink. Men and vermin and brute animals are attacked, and sometimes animals only, while the epidemic avoids men. Of all fevers these are the worst. Signs of the approach of plague are comets and irregular seasons, too much cold in the hot season, too much heat in the cold season, thick and foggy air, the threatening of rain without rain. Also a warm and damp summer, a time when birds desert their nests and when many reptiles appear on the surface of the earth. All these are signs that an epidemic is about to come. The symptoms are that the heat of the body is moderate externally and great internally, with thirst and dry tongue and difficulty of breathing and praecordial pain and foetor of everything coming out of the body. The prognosis is bad and there are

<sup>1</sup> f. 13 b.

terrible and deceptive complications, and after these small-pox and measles may follow. Physicians are often deceived, and when they expect a good turn after the crisis then comes death. A person may be preserved from infection in a cold season by smelling and swallowing musk and aloes-wood and storax, calamita and amber and such-like aromatics. If the season is warm, sandal-wood and roses, camphor and 'acetositas citri,' sour milk, all kinds of sour herbs and vinegar. Repletion of food and drink is to be avoided. If the extremities are cold they are to be rubbed. Purging and bleeding are protective. Warm baths are to be avoided. Sweets made with honey, green fruits, and sweet fruits are to be avoided. Veal, fowls, and partridges may be eaten with lettuce, vinegar, and acid herbs. Syrup of vinegar is to be taken in the morning and at midday syrup of violet in cold water.

Brother John Helme, who was probably one of the brethren of St. Bartholomew's Hospital, recommended against the plague a mixture of aloes and myrrh to be taken out of warm wine, the bulk of a little nut of the powder to be the dose. Water distilled from diptamius, pimperl, tormentil, and scabious, equal parts of each, is to be drunk daily. 'Est enim optima et nobilissima medicina.' Camphor, three or four grains, avails against pestilential air according to Hali Abbas. Warm bread should be consumed, as a few morsels of it prevail against pestilential air and against fetid morning vapours. It is also good against the foetor of the sea, and if

you have not warm fresh bread, says Mirfeld, 'da tostum.'

I may here remark that our idea that sea air is wholesome has not always prevailed, for in an account of Northamptonshire, published in 1738, the author remarks 'the air of Northamptonshire is exceedingly pleasant and wholesome, the sea being so remote that it is not infected with its noisome fumes'. Scented wine should be drunk, and on going out of the house an aromatic should be thrown on to the fire. One proceeding difficult to explain is recommended in cases of fever. A little twig of hazel, a foot long, is to be broken in the middle. The two parts are to be held a little way apart and certain words repeated, and by virtue of the words the twig becomes united in some place. Here it is to be held by finger and thumb and the rest cut away so that there is a little cross. This the feverish man is to hold above him and to say some words in French and five paternosters, and he will be healed, as has often been proved, says the *Breviarium*. This therapeutic method does not seem less rational than the method of discovering subterranean water by the movement of a hazel rod in the hands of a water finder, which has been gravely defended and widely practised in our own times.

Among the medical books of Mirfeld's time were treatises on the diseases of horses, of cattle, and of hawks<sup>1</sup>. Epidemic disease in cattle, he says, may be

<sup>1</sup> The *Hieracosophion sive De Re Accipitraria* of J. A. Thuanus



coloris nym. qui p[ro]p[ri]et[ate] in quibus  
 p[ro]p[ri]et[ate] p[ro]p[ri]et[ate] ad nob[is] d[ic]it[ur] q[uo]d s[un]t p[ro]p[ri]et[ate]  
 co. in fine d[ic]it[ur] q[uo]d p[ro]p[ri]et[ate] p[ro]p[ri]et[ate] p[ro]p[ri]et[ate]  
 co. in fine d[ic]it[ur] q[uo]d p[ro]p[ri]et[ate] p[ro]p[ri]et[ate] p[ro]p[ri]et[ate]  
 claud[unt] d[ic]it[ur] et d[ic]it[ur] q[uo]d p[ro]p[ri]et[ate] p[ro]p[ri]et[ate] p[ro]p[ri]et[ate]  
 in fine d[ic]it[ur] et d[ic]it[ur] q[uo]d p[ro]p[ri]et[ate] p[ro]p[ri]et[ate] p[ro]p[ri]et[ate]  
 in fine d[ic]it[ur] et d[ic]it[ur] q[uo]d p[ro]p[ri]et[ate] p[ro]p[ri]et[ate] p[ro]p[ri]et[ate]  
 in fine d[ic]it[ur] et d[ic]it[ur] q[uo]d p[ro]p[ri]et[ate] p[ro]p[ri]et[ate] p[ro]p[ri]et[ate]  
 in fine d[ic]it[ur] et d[ic]it[ur] q[uo]d p[ro]p[ri]et[ate] p[ro]p[ri]et[ate] p[ro]p[ri]et[ate]

[illegible]





warded off by hay prepared in a very harmless and charitable way. Three poor travellers are to be entertained on Christmas Eve and beds of hay are to be made for them. This hay is to be placed daily between the oxen from Christmas Day till Twelfth Day, and by the goodness of God they will be safe for the whole year. To recommendations of this sort Mirfeld usually adds some such phrase as 'so it is said'. Mirfeld had witnessed the long wakefulness of some cases of fever. His prayer to be used in such cases is based upon the legend of the Christians of Ephesus who outslept the age of persecution. The mention of the names of the seven sleepers of Ephesus—Maximian, Malchus, Dionysius, Marcian, John, Constantine, and Serapion—in relation to insomnia was not confined to Christendom. It extended to the Mohammedan nations and is still in use among the Arabs in Algiers. Mirfeld was not afraid to bend over the patient in fever, and recommends that the thickly furred tongue should be wiped with a linen rag moistened in acid juice. If uncertain whether the patient was alive or dead, he put a little burnt lard to the nostrils. If alive,

shows how much material had accumulated two centuries later on this subject for his third book beginning :

*Iam quibus adversus pesteis, et semina dira,  
Morborum, accipitrumque lues, atque ulcera hiulca  
Praesidiis uti consultus debeat aueps :  
Quaque etiam plagas, lethaliaque obliget arte  
Vulnera, et obducto doceat coalescere callo,  
Exsequar ; haec longi nobis meta ultima cursus  
Scilicet, et tanto finem impositura labori.*

extends to more than nine hundred lines.

he found that the patient thereupon scratched his nose. Mirfeld's account of plague is based upon the chapter on the same subject in the *Lilium Medicinae* of Bernard of Gordon, written at Montpellier in 1305. On all general questions Mirfeld uses Bernard's words, but his numerous remarks on protection from infection, as well as the way in which he leaves the reader to infer that treatment is of very little use in the plague, point to actual experience 'tempore pestilenciae'. One of the greatest recorded epidemics of plague occurred during Mirfeld's lifetime, and he was probably old enough in 1348-57 to have observed its phenomena and must have talked with many men who survived the epidemic. His chapter 'De febribus pestilencialibus' reflects that time in the recommendations of numerous protective measures and in the observation that vermin and brute beasts as well as men died and that the animals sometimes died when men did not; but he makes no original clinical notes. In Part II skin diseases are described and couplets are often given to enable the memory to retain their names and symptoms. He is inclined to agree with Platearius of Salernum that all kinds of leprosy are incurable, yet in one case by very severe purgative pills he did good and the leprosy was relieved for almost three years, yet after that it reappeared distinctly. The diet, he says, must be restricted. The patient's bread must consist of two parts rye and one part barley. He must drink clear well-scented wine and may eat game and eggs. The flesh of

domestic animals is to be avoided as well as putrefied food, cheese, salt meat, hares, and pulse. Gout Mirfeld treats with an ointment made from goose fat, for the making of which he gives a metrical recipe :—

Anser sumatur	Thus cera sagmen ovinum
Veteranus qui videatur	Post hoc assatum
Post deplumetur	Tunc assus non comme-
Intralibus evacuetur	datur
Intus ponatur	Vas supponatur
Trita caro tota	Sagmen ut accipiatur
Catti mox pelle remota	Istud pinguamen
Mel sal fuligo	Dat gutte cuique levamen
Faba pondere jungitur	Anseris unguentum
aequo	Valet hoc super omne
Uctum porcinum	talentum.

He treated chronic rheumatism by rubbing the part with olive oil. This was to be put into a clean vessel while the pharmacist made the sign of the cross and said two prayers over it, and when the vessel was put on the fire the Psalm 'Quare fremuerunt gentes' was to be said as far as the verse 'Postula a me et dabo tibi gentes hereditatem tuam'. The *Gloria* and two prayers are then to be said and the whole repeated seven times. The mixture of prayers with pharmacy seems odd to us, but let it be remembered that Mirfeld wrote in a religious house, that clocks were scarce and watches unknown, and that in that age and place there was nothing inappropriate in measuring time by the minutes required for the repetition of so many verses of scripture or so many prayers. The

time occupied I have found to be a quarter of an hour. Scrophulus (scrofula) is, he says, according to Johannicius, nothing more than multiplied glands. If other methods of treatment fail we go to kings, because by touch alone kings are wont to cure that infirmity thence called by many morbus regius.

The chapter on epilepsy and apoplexy and that on hemicrania are based upon the chapters on the same subjects in John of Gaddesden's *Rosa Anglica*. Verses are to be repeated in the ear of the epileptic man as he lies on the ground. The epileptic unconsciousness lasts but a short time, and no doubt, as Mirfeld and other writers of his time assert, the patient often got up after

Gaspar fert mirram: thus Melchior: Balthazar  
aurum.

Hec tria qui secum portabit nomina regum,  
Solvitur a morbo Domini pietate caduco

was repeated in his ear. To a man ignorant of the fact that while the anatomical change which produces an apoplectic fit is one involving actual destruction of a part of the brain, that of an epileptic fit is, for the most part, a transient condition, it must have seemed reasonable by analogy that verses should do good to an apoplectic patient. Mirfeld recommends an empiric remedy of English Gilbert. The following two verses are to be tied round the arm, the Lord's Prayer being said the while. The verses are to be written with crosses above and below each word:—

Amara timi taturi: postos sigalos sicaluri:  
Ely poly carras: polyly pylini lyvarras.



There are several similar medical charms in *Marcellus Empiricus*,<sup>1</sup> and Professor Rhys<sup>2</sup> has lately maintained with great ingenuity that they preserve sentences of one of the three chief Celtic dialects of Gaul. He shows how interesting such verses may prove on minute examination. I may give one example from *Marcellus* for purpose of comparison :—

Omnia, quae haeserint faucibus, hoc carmen expellet :  
Heilen prosaggeri nome si polla nabuliet onodieni  
iden eliton

Hoc ter dices et ad singula expues :

Item fauces, quibus aliquid inhaeserit, confricans  
dices :

Xi exuricone xu crigrionaisus serisu mi orelor  
exugri cone xu grilau.

To trace to their origin the numerous lines of verse of which Mirfeld recommends the repetition in various emergencies would take a long time, but I may point out the source of one couplet.<sup>3</sup>

Sancte Columquille remove mala dampna faville  
Atque Columquillus salvet ab igne domus.

The lines were repeated as a charm to stop the burning of a house. In the life of St. Columcille or Columba in the *Leabhar Breac*, a fifteenth-century

<sup>1</sup> *Medici antiqui omnes* (Aldus), Venice, 1547, containing *Marcellus de Medicamentis*, p. 107 b. I like to quote from this edition since it reminds me of the friendship of Mr. R. W. Raper, of Trinity College, Oxford, who gave me a fine copy of it in a splendid ancient binding.

<sup>2</sup> *Celtae and Galli: Proceedings of the British Academy*, vol. ii, 1905.

<sup>3</sup> Oxford MS. of *Breviarium*, f. 253 a, col. 1.



manuscript, occurs this passage: 'A great flame came towards him once in Hi. They asked him the cause of the flame. Fire of God from heaven, quoth he, came just now upon three cities in Italy, so that it slew three thousand men as well as their wives and sons and daughters.'<sup>1</sup> Mirfeld observes that an injury on the right side of the head is likely to lead to paralysis on the left side of the body and relates the case of one of the canons of St. Bartholomew's Priory who was treated by his master. The canon was about to get on his horse, and when the said canon wished to seat himself in the saddle the horse arose on his two hind legs and the canon fell head downwards over the crupper of the horse to earth, and fell so heavily upon his head that straightway he lost the sensation and movement of his whole body. Mirfeld's master having been called by the friends of the patient made them shave his head, and then rubbed in oil of roses with a quart of warm vinegar, and sprinkled it with a powder, and put over it a fine cloth soaked in the aforesaid oil and vinegar, and over that fastened linen stoups and bound with bandages his whole head, and put over all the skin of a lamb. And every day he visited him twice and rubbed in ointment into his neck and as far as the middle of his spine. On the second day the patient

<sup>1</sup> 'Laisse mor tanic dosum fechtus inhii: fiarfacht desuim fath na laissi. Tene De do nim olesium tanic innossa for teora cathracha isin, Etail coros marb tri mile fer cen mota mna ocus maic ocus ingena.' *Leabhar breac*: facsimile. Dublin, 1878, f. 33, Part I, col. *a*, line 67 to col. *b*, line 3. First edited by Whitley Stokes in *Three Middle Irish Homilies*. Calcutta, 1897.

opened his mouth a little. Then one of his friends wished to try if he would eat, but the physician would not allow it and said, 'Even if he wished to eat I would not let him.' On the third day, when a question was put to the patient, he tried to answer, stammering, but he could not form the word. On the fourth day he spoke stammeringly, and then they handed him a thin warm drink, which he saw and swallowed. The fifth day he took a thin tisane. On the sixth day they gave him some chicken broth. He then began to grow stronger, little by little, and to be able to move, but it was many days before he could walk. When he was able to take food Mirfeld's master began to prepare pills, to resolve by evacuation the residue of the material accumulated by the fall on his head. He recommended that the patient should eat the brains of birds and fowls and kids, and thus doing he was cured. But the poor canon was never quite the same man again, as Mirfeld says: 'Nunquam tamen fuit ita subtilis ingenii et bone memorie sicut prius.'

Hippocrates and Galen had observed that an injury to the left side of the brain may produce paralysis of the right side of the body, and even a general man of letters like Plutarch knew this. Mr. J. D. Duff, of Trinity College, in a letter to me of August 16, 1895, says: 'Here is something I noted for you from Plutarch's *Conjugalium Praecepta* (20 E): "ὥσπερ οἱ ἰατροὶ λέγουσι τὰς τῶν εὐωνύμων πληγὰς τὴν αἰσθησιν ἐν τοῖς δεξιοῖς ἀναφέρειν." What do you suppose he means? That an injury

to the left side of the brain injured the right side of the body? And is that so? Plutarch was interested in medicine as in nearly everything and often quotes something from Hippocrates.' Dr. John Cooke, in his careful *Treatise on Nervous Diseases*, which appeared in 1820, tells as much, and very little more, of the relation of hemiplegia to destruction of part of the brain. When Mirfeld treats of injuries he regrets that medicine and surgery have become separate lines of practice. The well-informed, he says, are aware that he cannot be a good physician who neglects every part of surgery, and, on the other hand, a surgeon is good for nothing who is without knowledge of medicine. Mirfeld times with precision the recovery of each broken bone. A rib will take twenty days. A humerus or a femur forty days. He had noticed that union is slower in the aged. He writes at length on *materia medica*, and I might easily give a separate lecture on this part of his work. He describes the drugs, names their common adulterations, discusses their effects, and gives many prescriptions. The last chapter of the *Breviarium*, that on preserving health, is based on the 'Regimen Sanitatis Salerni'.

Another work of Mirfeld's is the *Florarium Bartholomei*.<sup>1</sup> It is to Mr. J. P. Gilson, a member of the learned staff in the manuscripts department of the library of the British Museum, that the discovery of the authorship of this book is due. At the foot of folio 3 is written:—

<sup>1</sup> MS. Royal 7 F. xi (British Museum).









Ad IHS incipies capitales inde notabis.

Nunc quo vado scies venio simul unde probabis.

Chapter lxii begins with the word 'Jesus' and the initials of the following chapters make up the words: Johanni de Suthwelle per Johannem de Mirfeld: Ora pro nobis beate Bartholomee ut digni efficiamur promissionibus Cristi. Amen. Explicit.

Mr. Gilson was so kind as to point out to me this discovery of his, and I wrote down the first words of one hundred and fourteen chapters, beginning at chapter lxii. There is an erratum, which may perhaps point to the fact that the book is actually in Mirfeld's handwriting. The words, the initials of which ought to make up his name, are: Monachus; Inter; Raymundus; Foemina; Rex; Loquens; De. These initials are decorated in red. This was usually done by an illuminator and not by the original scribe. A little letter was written by the original scribe over which the illuminator painted his large red initial. The fifth word was Rex, but the acrostic requires an E and not an R. It is clear that the sentence was made before the 'r' was illuminated, and while it was so small as to be overlooked, so that E and not R was used in the acrostic. Mr. J. P. Gilson has mentioned as indications of the date of composition in his catalogue of the Royal MSS. that the constitutions of Simon Islip of 1362 are quoted,<sup>1</sup> and that a sermon of John Grandison<sup>2</sup> (written Cronson), Bishop of Exeter, 1328-69, is

<sup>1</sup> f. 69.

<sup>2</sup> f. 181.

also mentioned. It is clear, therefore, that the *Florarium* was composed not earlier than 1362, and perhaps as late as 1369. The single medical chapter which it contains does not allude to the *Breviarium Bartholomei*, so I am inclined to believe that the *Florarium* was composed first. The *Florarium* is a theological treatise with one chapter on physicians and their medicines. The manuscript in the British Museum once belonged to the library of the religious house (of the order of the Trinity) of Ashridge in Hertfordshire, and had been given to Ashridge in 1518 by Richard Hutton.<sup>1</sup>

The preface of the *Florarium* explains that the author has collected numerous passages from the Holy Scriptures and from sacred writers. A flower garden is a place where flowers abound and so the name, he says, is appropriate to a collection of flowers from holy and spiritual writers, from doctors, and wise men. ‘Sed quare cum hac addicione Bartholomei sic nominatur ad presens nolo declarare non expedit quidem.’ The cause of this secrecy is no doubt that it has pleased him to explain his name and place of writing by the acrostic already mentioned. There are one hundred and seventy-five chapters, of which the first is on

<sup>1</sup> ‘Iste liber constat Thome Baxter vicario perpetuo ecclesie parochialis de Stikeford : Ricardus Hutton : Qui Ricardus contulit istum librum domui religiose de asherug ibidem in biblioteca permansurum. Anno domini, 1518.’ *Florarium*, f. 259







Abstinence and the other subjects follow in alphabetical order. The one medical chapter is of great length, 'On Physicians and their Medicines.' Mirfeld urges physicians not to think too much of money, and relates as a warning the case of one to whom were owed thirteen pounds for his treatment of a patient during three years. The physician when dying and exhorted to receive the Holy Eucharist could say nothing but 'thirteen pounds in three years'. Mirfeld advises prelates to have a rope in their study hanging from the ceiling and knotted at the end on which they may take exercise by swinging or raising their weight on it, and recommends them to carry weights in their hands about their rooms if they cannot take enough outdoor exercise. He counsels every one to bear in mind the verses (of the 'Regimen Sanitatis Salerni') :

Sit cena levis  
Vel cena brevis  
Sit raro molesta  
Magna nocet  
Medicina docet  
Res est manifesta.

Gluttony slays more than the sword. Foods are not to be mixed, but a meal of bread to be taken in the morning, and of meat in the evening. 'And in this,' he says, 'all doctors of this faculty agree, but we English from long habit hold the reverse.'

In the library of Lambeth Palace there is a manuscript which once belonged to Archbishop Sancroft, whose name (W. Saner.) is twice written

in it. The volume contains several manuscript fragments, and among them four and a half pages on prognosis abstracted from medical authors and digested into a treatise called *Speculum Johannis Mirfeld*. It ends, 'Explicit iste tractatulus multum necessarius.' In these three works Mirfeld does not mention any vernacular writer. The English men of letters with whose works he was familiar, Bede, John of Salisbury, John of Gaddesden, Ranulf Higden, all wrote in Latin. He was acquainted with Horace and Virgil, and Ovid. He had read Boethius, and knew well the *Liber Etymologiarum* of Isidore of Seville. I am not competent to speak of his theological reading, but it was obviously extensive. Mirfeld had read one medical book of his own time again and again—the *Lily of Medicine* of Bernard of Gordon—and had a less profound acquaintance with the *English Rose* of John of Gaddesden, and with the writings of Gilbertus Anglicus. These were the modern books of his time. Of ancient authors he had studied the then current books attributed to Hippocrates and Galen. He had read a good deal in the Continent of Rhazes, and was acquainted with some of the works of Serapion, of Avicenna, of Constantinus Africanus, and of Isaac, son of Solomon. The works of Roger and Lanfranc, and Platearius of Salernum, and Arnaldus de Villa Nova were well known to him. The *Antidotarium* of Nicholas and Aemilius Macer's *De Herbarum Virtutibus* were his chief reading in pharmacology. Mirfeld had observed patients

for himself both in the world, and in a hospital, and had formed independent opinions on the effects of treatment, and on general prognosis.

In universal humanity towards the sick, and in the wish to alleviate pain, and to consider the feelings of the patient, those essential parts of our profession, without which the highest skill in our art can never be attained, he was equal to the physician of to-day. He was imperfectly trained in the art of observation, and was inclined to accept without examination the dicta of great teachers of medicine. It was for him a proof of the usefulness of methods of treatment that patients were said to have been better after employing them, and he did not pause to consider whether the improvement was a probable event of the disease, or examine very closely into the accuracy of the diagnosis. Such was John Mirfeld, a physician of wide reading, with a mind full of all that was known in his time, a laborious and high-minded man, anxious to do all in his power for his patients, and to instruct others how to relieve suffering.



## LECTURE II

### THE EDUCATION OF PHYSICIANS IN LONDON IN THE SEVENTEENTH CENTURY

MR. PRESIDENT, Censors, and Fellows of the College,—I have endeavoured in my first lecture to show what were the attainments and what the studies of a mediaeval physician in London. John Mirfeld knew something of the seven liberal arts, of grammar, of rhetoric, of logic, of arithmetic, of music, of geometry, and of astronomy. He had been influenced by the society, the traditions, and the architecture of a great university; had been trained in medicine by a master who was a physician; had known the members of the staff of a hospital and seen cases in it; had read *materia medica*, medical botany, and pharmacology in Nicholas and perhaps in Marcellus, surgery in Roger and Lanfranc, medicine in some books of Galen, in Rhazes, in Avicenna, in Platearius of Salernum, and in the more modern writers Bernard de Gordon, John of Gaddesden, and Gilbertus Anglicus. He had read Ysaac on diet and knew by heart the precepts on regimen of the school of Salernum. He was familiar with the names and with parts of books attributed to Hippocrates and to Aristotle. He knew something of Horace, of Virgil, and of Ovid,

and had read the *De Consolatione Philosophiae* of Boethius<sup>1</sup> and some of the other works of that last of the Latin classical writers. His chief source of general knowledge was St. Isidore, whose *Liber Etymologiarum* is a vast collection on everything known to the educated world of the sixth century. He was thoroughly versed in the Old and the New Testament. He had read much in the writings of St. Augustine and St. Jerome and some of the works of St. Bernard, St. Anselm, and St. Thomas Aquinas. He wrote easily the Latin of his time, the living language of the Church and the Law. He had read no Greek literature, but was acquainted with the Greek alphabet, and knew something of Aristotle and of Alexander. In medicine he was capable of recognizing the general condition of fever and of distinguishing clearly a few species of disease in which fever occurs, the plague, for example, and tertian ague. He could distinguish to some extent the manifestations of diseases which we call pleurisy and bronchitis. He knew that dysenteric symptoms were not all due to the same cause. He had names for several distinct skin diseases. He had some knowledge of enlargement of the lymphatics. He was as well acquainted with epilepsy as most physicians up to the days of Trousseau. He had

<sup>1</sup> Mirfeld was neither the latest nor the most famous medical writer who was versed in Boethius. Sydenham, in his chapter *De morbis acutis in genere*, quotes Book II, Metrum III, of the *De Consolatione Philosophiae*:

Constat aeterna positumque lege est,  
Ut constet genitum nihil.

observed hemiplegia clinically. He could recognize gout. He knew something of dislocations and fractures. He understood the value of exercise and of rational diet for the preservation of health, and was certain of the ill effects of intemperance. He was acquainted with some of the effects of opium, of turpentine, of sulphur, and of some other drugs. He understood the necessity of attention to the details of nursing, and was aware of the importance of remembering the effect of the mind on the body. I need not point out the gaps in his knowledge of clinical medicine or of therapeutics, nor the defects in his whole system due to the small accumulated knowledge of his age in anatomy and physiology. Morbid anatomy was altogether unknown to him. Such were the attainments of John Mirfeld in the last quarter of the fourteenth century. A manuscript on pharmacology,<sup>1</sup> which was in existence in his time and which is now in the British Museum, has at the beginning a fine illuminated initial in which Serapion, in a doctor's gown, is depicted lecturing on materia medica with a plant in his hand. The picture is instructive, for it shows that they are wrong who suppose that scientific methods were unknown in the Middle Ages. At the time of this manuscript a lecturer illustrating his teaching by specimens was clearly a familiar sight to students of medicine. While examining the manuscript I observed a Latin inscription in a much later hand, which stated that the book belonged to Nicholas de

<sup>1</sup> Harley, 3745.







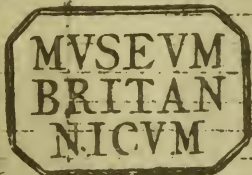




1

ad col. mial. 2 puo. 9. R. lxxm amojac. oppo  
bally m. 7. 7. se ap. m. cos harind. an. m. 7. 1. m  
lanta flu. centumree poly colli sal. ge. m. 7. 7. alor  
3. m. colaput. 7. b. hat pille 2 amistatentia

Ita libri ponet magistro petro Rodmuller N. de rusia  
qui emit a magistro fabrice d. lorch quod et  
alios plures libros d. mediana et d. auctus  
d. fuerit illis magistro petro Rodmuller phibad  
ibid. p. 50. flore. romph. 1499.



LIBER SERAPIONIS.

Note in the hand of Nicholas of Cusa, dated 1449.

Cusa, who had bought it and many other books on medicine and on the acts in 1449.

Nicholas de Cusa, to whom in the generation following Mirfeld's this copy of Serapion had belonged, was a man of varied learning and of a scientific habit of mind. He was a theological writer, a mathematician, and an observer of natural phenomena. He made an original examination of the Koran, and critically discussed its contents; and in medicine he introduced an improvement which in an altered form has continued in use to this day. This improvement was the counting of the pulse which up to his time had been felt and discussed in many ways, but never counted. The first method of a new invention is often unnecessarily cumbrous, but this does not detract from the merit of the man who first discerns its principle. Nicholas of Cusa proposed to compare the rate of pulses by weighing the quantity of water run out of a water-clock while the pulse beat one hundred times. Thus, he said, you may easily prove the degree in which the pulse of a young man is more rapid than that of an old man. 'The weight, therefore, of water that flows out in relation to the differences of pulses in the youth, in the aged man, in the healthy and the sick ought necessarily to lead to a truer knowledge of the disease, one weight being proper to one infirmity and a different weight to another.'

The manufacture of watches with second-hands has since given us a simpler method of counting, but the merit of introducing this useful kind of



observation into clinical medicine belongs to Nicholas of Cusa. He became a cardinal, and is buried in the church from which he took his title, St. Peter ad Vincula. Devotion attracts many people to this church, and a love of art, since it contains a great work of Michael Angelo, many others, and science adds a third interest in the monument of this improver of clinical medicine. His tomb has no ornament but its inscription, yet it is not improper to consider that he has a more lasting memorial in his commemoration over the whole globe, wherever medicine is practised, by the simple method of observation which he was the first to contemplate.

Some knowledge of Greek is discoverable in Western Europe throughout the Middle Ages, and two Greek phrases at least were known by sound to every Christian. The Greek quotations in the *De Consolatione Philosophiae* of Boethius, for many centuries one of the most widely read of books, must have made every reader familiar with the Greek letters, and passages of Greek are to be found here and there in manuscripts, as in the Schaffhausen copy of Adamnan's *Life of Columba*.<sup>1</sup> Johannes Scotus Erigena, it is certain, knew Greek well enough to translate the Pseudo-Dionysius, and both Roger Bacon and Robert Grosseteste had considerable attainments in it ; but it was a rare accomplishment, and there were very few Greek books in the libraries. The increased study of this great literature, which began in the fifteenth century, changed the attain-

<sup>1</sup> William Reeves : *Life of St. Columba*. Dublin, 1857.

ments required in a learned man. The invention of printing gave force to the new learning, and both the aspect of libraries and the studies of students were altered.

The founder of our College of Physicians, Thomas Linacre, was born about the time of the death of Nicholas of Cusa, A.D. 1464. A century after the *Breviarium Bartholomei* was written, Linacre was pursuing the study of Greek under Demetrius Chalcondylas in Italy. Before 1500 he had taken his M.D. degree at Padua and had returned to England. In the Renaissance, medicine was as closely associated with literature and general learning as it had been in the Middle Ages. The difference was in the kind of literature and consequently in its effect. Linacre and his contemporaries had learned Greek, and the study of the books of ancient Greece, whether Hippocratic or philosophical, opened their minds to the true source of natural knowledge—Nature herself and not books. Our College was founded in 1518 and established in England a permanent relation between our profession and the world of learning.

The mediaeval physician attained nearly all his knowledge from books. He had read books of many kinds, but more on medicine than on other subjects. He was inclined to add little from observation. The physician of the Renaissance had read medicine too. Both revered Hippocrates and Galen, but the later physician had seen Hippocrates and Galen so near that he adopted the method

by which they had attained knowledge, and followed their example instead of only considering their conclusions. The trouble the later physician had to take to attain a knowledge of Greek, as on the one side it brought him to the true sources of natural knowledge, so on the other, bound him to the other branches of human thought. The knowledge required in this College was not to be attained but by living laborious days, yet many men attained it, and thus a physician in England was rightly thought a member of the learned world.

Leland and Caius, his contemporaries, have both borne testimony to the learning of our first elected Fellow, Dr. Bartlot. Since his attainments were admired by Caius it is certain that he knew Greek and was well read in Galen, and we have the direct testimony of Leland that, unlike most of the physicians of the Renaissance, he knew also the mediaeval writers. It was appropriate that a man not negligent of the old medicine and well versed in the new should be the first doctor to be elected into our College, and that the first occasion on which our statute book, bound in silver, was carried before the President in state should have been in the funeral procession which bore Dr. Bartlot to his grave in the church which had once been the daily resort of John Mirfeld and in which probably his bones then rested. A fine medal struck in honour of Dr. John Freind has on its reverse figures of an ancient and a modern physician joining hands, with the words :

*Medicina vetus et nova : Unam facimus utramque.*

The same design would have been appropriate to the commemoration of Richard Bartlot.

Linacre, our first President, and Dr. John Clement, president in 1544, were physicians of the Renaissance. Linacre was a priest and Clement a layman, but both were Greek scholars of extensive reading, and the practice of both was guided by what they had learned from many treatises of Galen and from parts of Hippocrates. Most of Linacre's translations were of books of Galen, but he also translated the *Σφαῖρα* of Proclus, a Byzantine Greek of the fifth century of our era who founded a system of philosophy drawn from Plato, Pythagoras, and Aristotle. Clement's translations were of theological writers. Linacre wrote on Latin grammar and taught it to the Princess Mary. Clement was professor of Greek at Oxford, and in both classical learning was indissolubly bound up with their profession. Their Greek reading gave a precision to their medical thoughts and practice. Perhaps the constant desire to bear in mind Hippocrates and Galen in diagnosis, prognosis, and treatment may have to some degree caused their view of medicine to be narrow, yet the contact of their minds with the truly natural method of the Greeks must have led them sometimes to opinions wholly based upon their own observations. These physicians were members of the learned world of their time. Sir Thomas More, Erasmus, and Colet were their friends.

Edward Wotton, who was President in 1541, and John Caius, President in 1555, were no less Grecians



than Linacre and Clement, but they were the first of our College who added zoology to their studies. Wotton was of Magdalen College, and took his first degree at Oxford in 1514. The College of Corpus Christi was founded two years later, and Wotton in 1521 was appointed lecturer in Greek there. Bishop Richard Foxe, the founder, wished to encourage the new learning in his college, and he gave Wotton the income of a Fellow with leave to travel in Italy 'to improve his learning and chiefly to study Greek'. Wotton graduated M.D. at Padua, and after his return to Oxford, where he was incorporated M.D. on May 16, 1526, lectured again on Greek at Corpus, but two years later came to London. In 1552 he published in Paris a folio, *De Differentiis Animalium*, the first printed book by an Englishman on zoology. He had read all the passages about natural history in the Greek and Latin classics because he was interested in the subject, and so gradually came to put together the book. Sir John Mason, his particular friend and patron, who was English Ambassador in France in 1550 and 1551,<sup>1</sup> took the manuscript with him to Paris and seems to have arranged for the printing and publication of the book there. It was brought out with paper and type of the finest kind and dedicated to King Edward VI.

The pages of Wotton contain much from Pliny and something from Aristotle, with many learned

<sup>1</sup> Edoardi Wottoni Oxoniensis *De Differentiis Animalium* Libri Decem: Preface.

notes, some Greek in every chapter, and quotations in the text from Plautus and Virgil, Ovid, Martial, and Oppian. He had read Cicero and Columella, Theophrastus, Hermolaus, Ennius, Aelian, Ausonius, Suetonius, Heliodorus, Nicander, Dioscorides, Paulus Aegineta, and Albertus Magnus, yet very little in the book of nature. His chapter on thrushes is less abstruse than some others, and shows that his mind looked rather towards bookshelves than hedgerows. 'Of the kinds of thrushes and blackbirds and of other birds which are more or less like them. In the country and among hedges and farms the thrushes and blackbirds have their haunts. There are three kinds of thrushes. One is called *viscivorus* (mistlethrush) because it must have mistletoe and resin to feed upon, and it is of the size of a pica. Another kind is of the size of a blackbird. A third, which some call *ιλιάς* and *ιλλάς*, and others *τυλάς*; in Latin *iliacus* is of smaller size and less marked with spots. Thrushes make their nests from mud, as swallows do, alone in high trees. They make a covering of hair and wool and line the inside of the nest with the same. The thrush changes its colour: for in the summer the plumage about the neck is spotted, while in winter it is of a single hue: their note is the same all the year round. It migrates in winter in search of winter food, so that in Germany thrushes are most numerous in winter. Beech nuts are liked by thrushes. The flesh of thrushes is harder than that of partridges and that kind of birds. The juice, nevertheless,

if rightly cooked, is highly nutritious. As Martial says :—

Inter aves turdus, si quis me iudice certet,  
Inter quadrupedes gloria prima lepus.

The thrush roasted with berries of myrtle is good for dysentery.’

John Caius translated parts of Hippocrates and of Galen, and in him the study of these Greek physicians led to his own publication of observations, and his two books *De Ephemera Britannica*, one in Latin and one in the vernacular, are the firstfruits of clinical observation in England. His contributions to natural history were both addressed to the naturalist, Conrad Gesner, and were a treatise on British dogs, and one on rare animals and plants. His natural history has a more outdoor complexion than that of Wotton, with whose account of thrushes and blackbirds Caius’s chapter *De Morinello* may be compared. ‘Morinellus, a bird common on our seashores, is foolish but good to eat and is among us thought one of the greatest of delicacies and fetches a high price. The bird is a mocker. So that as the owl and the bustard by imitation of jumping, so this by night in candle-light is captured by the motion of the catcher. For if he stretches out his arm the bird extends its wing, if he his leg it does the same. Thus the bird intent on the man’s movement is taken by the fowler and is inclosed in the net. It is a small bird of the size of a starling with three front toes and no hind toe, with a black top of its head, white round the eye,

and is almost of the colour of a quail if you add a little grey, especially round the neck. I call it *Morinellus* for two reasons: because the bird is commonest among the *Morini* and because it is a stupid bird, which stupidity in Greek is called *μωρότης*. For the same reason we call it *Doterel*, as if, so to speak, crazy with folly.' The description of the *meleagris* or guinea fowl, the head of which, he says, is so arranged '*ita ut insideat capiti eo modo quo ducalis pileus illustrissimo duci Veneto si quod iam adversum est aversum fieret*', seems to bring Caius before us in Venice looking at the Doge in ducal cap walking in solemn procession round the piazza of St. Mark, or passing by in the *Bucentaur* in gorgeous state to wed the Republic to the sea; while the account of the *Doterel* shows him in the open country of his native Norfolk.

I have mentioned together Wotton and Caius as the men who first in our College brought zoology into the list of subjects on which a physician should be informed. They had an association outside this College, for Sir John Mason was the patron of both. This statesman, the son of a cowherd at Abingdon, had been an undergraduate at Oxford while Wotton was in residence, and became a Fellow of All Souls, and in 1552 Chancellor of the University of Oxford. He was early employed in diplomatic service abroad, and so continued almost to the end of his life. In October, 1555, he was English Ambassador at Brussels, and witnessed the elaborate ceremony in which Charles V abdicated the imperial crown.



Charles, moved by the stage effect which he had himself arranged, 'broke into weeping,' says Mason, 'whereunto, besides the dolefulness of the matter, I think he was moche provoked by seeing the whole company do the lyke before, there being in myne opinion not one man in the whole assemblie, stranger or another, that during the time of a good piece of his oration poured not out as abundantly teares, some more, some lesse.'<sup>1</sup>

The study of modern languages and their literature began in England soon after that of Greek, and with this part of learning our College was connected in several ways. Spanish was the first continental language in which a Fellow of this College became distinguished. Thomas Doyley, of Magdalen College, was at Oxford with Sir Philip Sidney and Lyly the euphuist and Hakluyt, the editor of the great series of voyages, all of whom were affected by the taste for the Spanish language and literature, which began in England in the reign of Philip and Mary and increased in the time of Queen Elizabeth. Doyley took his B.A. degree in 1564 and his M.A. degree in 1569, and after some medical reading at Oxford went abroad in 1571 to pursue medical studies. He graduated M.D. at Basle in 1581. Throughout these years he continued to increase his knowledge of Spanish and persevered in the study after his return to London in 1585. He was elected a Fellow of this College in 1588, and physician to

<sup>1</sup> Dispatch quoted in Motley, *Rise of the Dutch Republic*, ch. i.

St. Bartholomew's Hospital in 1590. He died in 1603 and was buried in the church within the hospital.

The first Spanish dictionary was published in London in 1591 under the title of '*Bibliotheca Hispanica* ; by Richard Percyvall : Gent.' The dedication to 'Robert Earl of Essex and Ewe, Viscount Hereford and Bourghchier, Lord Ferrers of Chartley, Baron Louvaine, Master of the Queen's Majestie's horse and Knight of the Garter', is followed by an address to the reader. In this, after describing the aims and contents of the book, and the help he had received from Don Pedro de Valdes and Don Vasco de Sylva, Percyvall says : 'In very good time I chaunced to be acquainted with the learned gentleman Master Thomas Doyley, doctor in Physicke, who had begunne a Dictionary in Spanish, English and Latine, and seeing me to be more foreward to the presse than himself : very friendly gave his consent to the publishing of mine, wishing me to adde the Latin to it as hee had begunne in his, which I performed, being not a little farthered therein by his advice and conference.' The generosity of Doyley seems to have been as great as his learning, and having thus contributed to the dictionary he wrote a short Latin poem in praise of it :—

Quas novus orbis opes, quos profert India fructus,  
Quas mare, quas tellus gemmas aurique fodinas,  
Has habet Hispanus, Jasonis vellere dives :

Cum populo aurato collubet ergo loqui.  
Expetit Hispanus Belgas evincere, regem  
Gallorum per vim regno depellere, regnum

Diripere Anglorum, quid non ? Cupit esse monarcha :  
 Cum rege hoc tanto, collubet ergo loqui.

Cum quibus aut bellum cupimus, commercia, pacem,  
 Horum sermo placet : facilemque brevemque  
 loquendi

Dat liber iste modum, dat Percyvallius author  
 Cum populo Hispano quam cito posse loqui.

Some prefixed commendatory verses by James Lea show that though Spanish was the first modern language in which our College produced a master, French and Italian had before received more attention in the world of London :—

Though Spanish speech lay long aside within our  
 British Ile,  
 Our courtiers liking nought save French or Tuscan's  
 stately stile,  
 Yet now at length (I know not how) steps Castile's  
 language in,  
 And craves for credit with the first, though latest  
 she begin.

The reading of Greek books as the only true method of entrance to medicine in particular and to learning in general lasted about a hundred years. Then at length the way to acquire knowledge, which Hippocrates and Galen made clear by example, had come to be thoroughly understood, and men, eager to acquire more knowledge of things from nature, no longer needed to be assured that thus only truth could be attained. The last words of the preface of the *De Magnete* of William Gilbert published in 1600, the year in which he was elected President of this College, show that this stage had been reached. 'To those early forefathers of philosophy, Aristotle,

Theophrastus, Ptolemy, Hippocrates, and Galen, let due honour be ever paid ; for by them wisdom hath been diffused to posterity ; but our age hath uncovered and brought to light very many facts which they, were they now living, would gladly have accepted.' The addition of such facts by Harvey, by Glisson, and others in this College and by many other observers all over Europe rapidly brought medicine into that state of constant growth and improvement in which it has ever since continued, but the change was gradual and not sudden. Theodore Goulston, a Censor in 1626 and three earlier years, made translations of the *Opuscula* of Galen published in 1640, eight years after his death, which were carefully read and annotated by Harvey. Goulston was, perhaps, the last physician of the Renaissance kind who studied Greek and through it attained his medical knowledge.

If Gilbert may be regarded as the first physicist of the College, the first Fellow who knew much of chemistry was undoubtedly Theodore Turquet de Mayerne, who came to settle in England from Paris in 1611, and was elected a Fellow of our College in 1616. He made many chemical experiments, and applied his chemistry to pharmacy and to therapeutics, making the *lotio nigra*, which has been valued ever since, and bringing calomel into use. He also carried out a long series of experiments on pigments. His varied attainments, his large practice, and consequent experience, as well as his upright character, caused his influence to be great,



and he showed to the College the usefulness of knowing something of chemistry, while his habit of taking elaborate notes of cases gave an example which had a most valuable effect on the study of clinical medicine. Sir Theodore Mayerne died in 1655.

Linacre, Clement, Wotton, Caius, Doyley, Gilbert, Harvey, Mayerne, and Glisson represent the kind of knowledge with which this College began, and that to which it gradually attained in the first century and a half of its existence. Latin was the language of composition and communication. Botany of some kind was an inheritance of physicians from the Middle Ages, improved first by the study of the text of Dioscorides, and then by the observations in the field of Lobel and Gerard and Parkinson, and many more in other countries. Greek was the most important professional training, diminishing in importance as the effects of reading Greek books became more distinct. The lesson was at last learned and the teacher was no more needed. The value of a knowledge of modern languages had come to be understood. Anatomy and physiology were sufficiently known by dissection and observation to make Harvey's discovery possible. The usefulness of physics and of chemistry had been demonstrated by Gilbert and by Mayerne. Morbid anatomy was considerably advanced, and its importance in its relation to clinical medicine made plain in the work of Harvey and Mayerne and Glisson. The precise study of disease during life was established by the copious note-taking

of Mayerne, and the exact observations of Glisson.

The publication by the College of the *Pharmacopoeia* in 1618, for the first edition of which Mayerne wrote the dedication to the King, may be said to have established the study of pharmacology on a sound basis by providing in successive editions of the *Pharmacopoeia* a tribunal before which drugs might be arraigned from time to time to answer for their usefulness, and be retained in the public service, or dismissed from it according to the decision. The College of Physicians was the sole guardian of medical learning in England at this period, for the universities were inclined to treat the subject as a part of general book-learning, only exercising a very slight and varying control over men who wished to take a Bachelor of Medicine or Doctor of Medicine degree. Supplicats were occasionally refused, and it seems reasonable to suppose that this was sometimes on account of insufficient knowledge in the candidate, or unsatisfactory evidence of study. The College, from its close connexion with Oxford and Cambridge, to which universities all its Fellows by residence or incorporation belonged, and by the influence of its recognized supremacy in medical knowledge, was sometimes able to prevent persons of insufficient attainments from admission to degrees. Thus Simon Ludford, who had failed in his examination before the College in 1553, and tried to obtain a licence to practise in each university, though of

most defective attainments, was for a time prevented—at Oxford by an appeal to the visitors, and at Cambridge by the influence of Caius—from receiving licence or degree. The refusal had the effect of leading him to improve himself, and he obtained an M.D. degree at Oxford about four years later, in 1560, and in 1563 he was elected a Fellow of this College. His copy of Avicenna is in our library, and in another book of his, *De dissectione partium corporis humani libri tres à Carolo Stephano*, Paris, 1545, he has written a copy of Latin verses headed by the words:—

Simonis Ludefordi est hoc volumen'

Corporis dissecti, anatomicarum  
Partium humani, docet hoc Volumen  
Et modum, et formam, Vtilitatem et Vsum,  
Illiteratos.

Absolutis comprobatur argumentis  
Actiones, officia, atque nexus,  
Esse quadam symmetria coacta  
Particularum.

Cuilibet membro propriam figuram  
Et situm, cursumque notamque ponit.  
Nil inexpertum memorat nec Vllum  
Sectio fallit.

Erutum a scitis Veterum quod prosit :  
Posteris charum, Stephanus relinquens,  
Munus inculpabile, quo perhenne  
Nomen adeptus.

Hiisce lectis, caetera quae medendae  
Sunt facultatis, potes experiri :  
Euadas tandem Vt medicus peritus.  
Perge Galenum.

Floccipendas pecuniam, Valebit  
 Ars: thesaurus deficiet, Volumen  
 Sollidis hoc Venditum habebis octo :  
 Totque ego solvi.

Whether these verses are sufficiently bad to have required his continued exclusion from the College I must leave to the distinguished Latin poets whom we have among our Fellows at the present day—to Dr. Robert Bridges and Dr. J. A. Ormerod. I suppose that Ludford did not obtain the purchaser who would pay the eight shillings he asked, as the book is in our library, to which, with the Avicenna, he probably gave it when, his early want of education having been repaired, he was honoured as a Censor.

Edward Browne was admitted a Fellow on July 29, 1675, when Sir George Ent was President, who had known Harvey well, and is honourably mentioned by Dryden in his *Epistle to Dr. Charleton*.  
 The circling streams oncethought but pools of blood—  
 (Whether life's fuel or the body's food),  
 From dark oblivion Harvey's name shall save  
 While Ent keeps all the honour that he gave.

Edward, the eldest son of the celebrated Sir Thomas Browne, was thirty-three years of age when he pledged his faith to the President and to the College on his admission to the Fellowship, and the silver sceptre which you, Mr. President, carried in your hand when you took the chair to-day, was on that day in the hands of Sir George Ent.

Edward Browne was already known as a man of letters, for he had published a volume of travels and a translation of a *Discourse of the Cossacks*. The



travels had been widely read, and the Duke of Queensbury and Dover, the Scottish statesman, some years later, thought the translation of the *Discourse of the Cossacks* entertaining enough to take with him in his coach when travelling. Edward Browne had had all the advantages of education which a kind and learned father could give him. He was born at Norwich, probably in 1642, and received his school education at the Grammar School in the Close, just within the gate, over which Sir Thomas Erpingham, a hero of Agincourt, was then kneeling in his niche as he is at this day. As the author of the *Religio Medici* took his boy to school I can imagine that he pleasantly pointed to the figure and quoted the words of King Henry V in Shakespeare :

Good morrow, old Sir Thomas Erpingham.

The conversation of his home was an important part of the education of Edward Browne. There must have been much delight to him in his boyhood in being told the nature and history of the many curious objects in his father's museum, of the narwhal's tooth, then called a unicorn's horn, of the birds' eggs, and of the funeral urns.

Sir Thomas Browne in his writings now and then is as sententious as Mr. Shandy, but his letters to his sons and theirs to him show that his nature had little in common with the selfishness of the Squire of Shandy Hall, who forgot every human feeling in his eagerness to establish the truth of his theories. On one occasion, that of the witch trial, Sir Thomas Browne allowed theories, drawn from ancient

reading, to pervert his natural humanity, but in his family affection, and his kindness to the poor, and in a certain simplicity which shines through his fondness for recondite fragments of knowledge and paradoxical antitheses, he shows a resemblance to that immortal example of goodness of heart, Captain Toby Shandy. A visitor in the household of the Brownes has in his writings a passage which represents the spirit which pervaded it. 'I can wonder at nothing more than how a man can be idle; but of all others, a scholar; in so many improvements of reason, in such sweetness of knowledge, in such variety of thoughts: other artisans do but practise, we still learn; others run still in the same gyre to weariness, to satiety; our choice is infinite; others' labours require recreations; our very labour recreates our sports; we can never want either somewhat to do, or somewhat that we would do.'<sup>1</sup> In such a home Edward Browne was soon ripe for the university, and he entered at Trinity College, Cambridge, in October, 1657, which makes it probable that 1642 is the true date of his birth and not 1644 as commonly stated, for thirteen years was then an unusual age, but fifteen years a common one at which to enter the university.

In 1663, Browne applied for admission to the degree of M.B. He preserved a copy of the supplicat<sup>2</sup> which he wrote on the occasion in one of his notebooks. It states that he had studied

<sup>1</sup> Bishop Hall: *Epistle to Mr. Milward*.

<sup>2</sup> MS. in British Museum, Sloane, 1797.

medicine for six years, and had heard the usual lectures, and passed through the required oppositions, responsions, and other exercises of the kind. He asks that these may be sufficient to allow him to enter into the faculty. He has also preserved a copy of the grace for his admission to the degree of Bachelor of Medicine at the congregation at which the grace is read or at the next. The exercises were matter of reading and of argument, but Dr. Francis Glisson, then Regius Professor of Physic, was careful that these should be duly performed, and it must have been an advantage to Browne to know something of a professor so deep in anatomy and morbid anatomy, and at the same time so exact in clinical observation. Browne seems to have had the opportunity of seeing two bodies dissected probably at the demonstrations founded by Dr. Caius.

After taking his degree Browne returned to Norwich, and continued his studies amid a good deal of enjoyment suitable to his years. The Duke of Norfolk was at that time the greatest person in Norwich, and his palace was in 1663-4 occupied by his brother Henry, and contained a part of their grandfather's wonderful collection of works of art—the Earl of Arundel, with whom Harvey visited Rome. Edward Browne was one of the guests of New Year's Day at this great house. He dissected a bull's heart on January 2, and danced at the Duke's palace on the 4th. He dined there on the 5th, and danced again in the evening, and

again on Twelfth Night. Next day he dissected a dog, and on the 9th the knee-joint of a calf, and another bull's heart, and the larynx of a bullock. On January 11 he danced at the palace till two o'clock in the morning to celebrate his host's birthday. Next day he dissected a turkey's heart, and examined the dentition of a monkey. Two days later he went over the monkey's skeleton, and on January 22 studied the anatomy of a sheep, and the next day prepared the right forefoot of a monkey. At the palace he met Dr. De Veau, a godson of Sir Theodore Mayerne, and then or later physician to Charles II. De Veau had with him a febrifuge powder, probably of cinchona bark, which he wished to try on a well-marked case of ague. On January 28, Browne studied the anatomy of oxen, and the next day dissected a hare, and further studied the monkey's skeleton. In February he prepared the skull and bones of the foot of a hare, dissected another hare, a hedgehog, and a badger. He paid at the same time some attention to botany, noting the flowering *Aconitum hyemale* and *Helleboraster*, and gathered many seaside plants. He examined a nasal polypus, and saw two patients, a man with consumption, and an old man with a fever. He went to London, arriving on February 24, and next day went to hear an anatomy lecture at Chirurgeon's Hall,<sup>1</sup> and saw a human body dissected—the third he had seen. In the morning Dr. Christopher

<sup>1</sup> The hall was in Monkwell Street : more anciently known as Muggewelle Street.



Terne, assistant physician to St. Bartholomew's Hospital, gave a general introduction to the course in Latin, and then lectured on the skin. There was a second lecture in the afternoon on the stomach, intestines, and mesentery, and before the lecture Browne was allowed to examine the dissected body in the 'anatomizing room'. He no doubt needed a little fresh air after this well-occupied day, and took a walk in St. James's Park, where he saw the king's zoological collection, 'divers sorts of outlandish deer, guiny-sheep, a white raven, a great parrot, a storke which, having broken its own leg, had a wooden leg set on, which it doth use very dexterously. Here are very stately walkes set out with lime trees on both sides and a fine Pall Mall.' Next day he heard the third lecture, which was on the suprarenals, the kidneys, and their related parts. He dined with his sister, who lived in Clerkenwell, and attended the fourth lecture in the afternoon. It was on the pleura, mediastinum, and lungs, which he went to see dissected before the lecture. His record of the fifth lecture has not been preserved. The sixth and last was given on the afternoon of the third day, and its subject was the anatomy of the eye. Dr. Terne concluded the course with a Latin speech. These six lectures given on Thursday, Friday, and Saturday were a course of anatomy of that time. The lecturer was a physician, the dissections were made under his direction by surgeons, the teaching was conducted in their hall, and was chiefly for the benefit of the

members of their company, though friends of the lecturer and others, if properly introduced, sometimes attended.<sup>1</sup> Dr. Terne, the lecturer, was a well-read physician who had studied at Leyden. He delivered the Harveian oration, and wrote a thoughtful paper discussing the question, 'An respiratio inserviat nutritioni?' but the only part of his writings which has been printed is an inscription in Latin verse under the engraved portrait of Dr. Christopher Bennet. This portrait is the frontispiece of Bennet's *Tabidorum Theatrum*, which is the fuller edition of the first treatise on tuberculosis published in England.

Hospitii quicumque petis quis incola tanti

Spiritus, egregia hunc consule scripta dabunt.

Browne married Terne's daughter, Henrietta, in 1672.

Dr. Windet, with whom Browne dined on the first lecture day, had practised in Yarmouth, and was a correspondent of Sir Thomas Browne. They agreed in a taste for out-of-the-way subjects, and for verbal conceits. Windet at the Restoration brought out two Latin poems. One is a condemnation of the execution of Charles I, and begins with the word 'Occidimus'. The other is on 'His Majesty's Happy Restoration', and begins with the word 'Vivimus'. A Latin letter *De vita functorum statu*, of which young Browne probably thought fit to mention his father's admiration, when on the first

<sup>1</sup> Edward Browne's notes are printed in Wilkin, *Works of Sir Thomas Browne*.

day of his anatomy lectures he dined with Dr. Windet, is a production containing much reading, Latin, Greek, Hebrew, and Arabic, and showing a turn of thought not unlike that often displayed by Sir Thomas Browne. The writer discusses the meaning of the word Tartarus, and debates the precise sense of various Hebrew and Greek words and sentences used in describing the state of man after death as well as all the opinions expressed by Hebrews and Greeks on the same subject. Windet was evidently a vast reader, but of the same kind as that Bishop, of whom Bentley, when asked whether he was not a very learned man, remarked, 'Dr. Warburton has a large appetite but a bad digestion.' Sir Thomas Browne and Windet had minds filled with the same kind of learning, but while the works of Browne continue to appear in new editions, and to form part of general reading, those of Windet are never opened. The difference consists in something difficult to express but easy to feel. Dryden has considered such distinctions, and has expressed his conclusion with his usual felicity, 'A happy genius is the gift of Nature : it depends on the influence of the stars say the astrologers, on the organs of the body, say the naturalists ; 'tis the particular gift of Heaven say the divines, both Christians and heathens. How to improve it many books can teach us ; how to obtain it none ; that nothing can be done without it all agree.'<sup>1</sup>

<sup>1</sup> Preface to Translation of Du Fresnoy, *Art of Painting*, 1695.

On March 1, Browne called on Dr. Joseph Dey, a Norwich man who practised in Crutched Friars, and as he was out, walked on to 'Mr. King's, living in Little Britain, an ingenious chirurgeon', who showed him various anatomical preparations. 'I being desirous to see the inside of a man's stomacke hee cut up one for me which he had by him.' In the afternoon he went to see a private museum near St. Paul's, where he was shown a sea elephant's head, a sloth, and an Indian serpent, and then walked on to Arundel House in the Strand, which contained the famous Arundel marbles. Mr. King, the surgeon, afterwards gave up surgery and took to medicine, and was made Sir Edmund King, and physician to Charles II in 1676. He became a Fellow of this College in 1687, and his picture by Lely is in our dining-room. His papers in the *Philosophical Transactions* show that he was a desirable man for a student to know. He was one of the first persons in London to use a microscope, and to pursue histological studies. He also worked at chemistry and entomology, and wrote creditable papers on the habits of ants and on leaf-cutter bees. He had dissected one hundred human brains, and Dr. Thomas Willis, the author of the *Anatomy of the Brain*, praises his anatomical skill.

More than twenty years later King took part in the first scene of a memorable tragedy. 'On the first of February,' says Burnet in his history of his own time, 'the King eat little all day, and came to Lady Portsmouth at night, and called for a por-



ringer of spoon meat. It was made too strong for his stomach. So he eat little of it: And he had an unquiet night. In the morning one Dr. King, a Physician, and a Chymist, came, as he had been ordered, to wait on him. All the King's discourse to him was so broken, that he could not understand what he meant. And the Doctor concluded, he was under some great disorder, either in his mind, or in his body. The Doctor amazed at this, went out, and meeting Lord Peterborough, he said, the King was in a strange humour, for he did not speak one word of sense. Lord Peterborough desired he would go in again to the bed-chamber, which he did. And he was scarce come in, when the King, who seemed all the while to be in great confusion, fell down all of a sudden in a fit like an apoplexy. He looked back, and his eyes turned in his head. The physician, who had been formerly an eminent surgeon, said, it was impossible to save the King's life if one minute was lost: He would rather venture on the rigour of the law, than leave the King to perish. And so he let him blood. The King came out of that fit: And the physicians approved what Dr. King had done.'

Three days after his visit to Edmund King, Browne returned to Norwich, and for the rest of the month worked at botany, dissected a frog, a rat, and a polecat, did a little chemistry, and was consulted in a case of scurvy. Having filled his mind with information at home, at Cambridge, and in London, Browne was well prepared for the further

education of travel. He left home on March 28, 1664, reached London at midday on the 30th, went by boat to Gravesend, and rode thence through Rochester, Sittingbourne, and Canterbury to Dover, whence he sailed to Calais, and thence went by Beauvais to Paris. In Paris he lived in a room in the Rue St. Zacharie for seven livres a month, and began regular studies at once. He went to four courses of lectures: Dr. Maureau on hernia, Dr. Dyneau on fevers, Dr. Le Bell on surgical operations, and that of Dr. Guy Patin who answered 'all doubts and questions proposed', and was a staunch Galenist who laughed at the chemists. Browne also went round the Hôtel Dieu and La Charité. In September he left Paris, and went to Montpellier and studied there for about a month, and then went on to Italy, visiting many cities, and staying for some time in Rome. He travelled north again with Dr. Paman, a physician and Fellow of St. John's College, Cambridge, who must have been a man of a full mind since Sydenham valued his friendship. Some of Paman's books are in our library.

Browne went to Venice, and then spent some weeks at Padua studying anatomy. The dissection was admirably done by a demonstrator named Marchetti who had been instructed by Sir John Finch, 'one that in anatomy hath taken as much pains as most now living.' This was Dr. Finch of Christ's College, Cambridge,<sup>1</sup> a connexion by

<sup>1</sup> His rooms in Christ's College, finely panelled in oak and with his armorial bearings over one of the doors, are occupied

marriage of Harvey. Browne left Padua in April, 1665, and went to Montpellier again, thence proceeding to Paris, which he reached in the middle of June, and attended lectures on botany and chemistry, short courses of about a month's duration. In July he caught small-pox, an event which happened in the life of very many students at universities of that period. Some months later he returned home. He had learned French and Italian. In August, 1668, he went abroad again to Holland, where he visited universities, their libraries, and museums, and attended lectures. He went on to Vienna, and there learned much from Lambecius, the librarian, and seems to have acquired colloquial Greek. From Vienna he went into Thessaly and visited Larissa in order to know the air and place in which Hippocrates practised. He also made a tour in Hungary and one in Styria and Carinthia, and came home in 1669. He went abroad once more in 1673, visiting Cologne and the Low Countries. He was admitted Fellow of this College in 1675, and elected physician to St. Bartholomew's Hospital in 1682, and was our President 1704-8. He died in 1708.

I have chosen to consider Dr. Edward Browne as an example of the education of physicians in London in his time, because while his opportunities of learning were excellent they were yet such as physicians often enjoyed. He began life in a  
at the present day by that distinguished biologist, Mr. Arthur Everitt Shipley, F.R.S.

learned home, going to the grammar school of his native city, and at the age of fifteen years entered the university, where after six years he took the degree of M.B. He had seen some human dissection, but had not done any with his own hands, and had attended some university exercises, probably both lectures and disputations, conducted by Glisson. He had probably read the Aphorisms of Hippocrates, of which Ralph Winterton, Glisson's predecessor as professor of physic, had edited a convenient edition with translations of each aphorism into Greek and Latin verse, and from some passages in Browne's writings he seems to have also read the Hippocratic treatises on air, water, and situation, as well as the Epidemics. He had also read parts of Galen. He could write and speak Latin. After taking his M.B. degree he continued his anatomical studies, and worked practically at zoology, botany, chemistry, and pharmacology, and at medicine, parts of surgery, and morbid anatomy. He learned French and Italian, and could speak a little Greek. He used every opportunity of conversing with learned men, such as Swammerdam the zoologist, Glauber the chemist, and Lambecius the bibliographer. He had read widely—*Purchas*, *his Pilgrims*, the travels of de la Martinière in the Arctic regions, Raleigh's *History of the World*, Ashmole's *Order of the Garter*, and the Duchess of Newcastle's *New Blazing World*. His father advised him to study Cicero, and not to read much of Lucretius. 'Quotations may be taken from it,' says



Sir Thomas Browne, but 'otherwise I do not much recommend the reading or studying of it, there being divers impieties in it, and 'tis no credit to be punctually versed in it; it containeth the Epicurean natural philosophy'. Besides his university examination, which was a kind of disputation, Edward Browne was no doubt examined in this College for admission as a candidate in 1668, after he had been engaged in medical studies for about ten years. He took his M.D. degree at Oxford in 1667, when he had studied nine years, and in his own university in 1670. This degree was probably given on proof of study in the faculty. The studies were less regulated, and the practical work less precise than those of a physician in our time. There were as yet no organized schools of medicine in England, and except in this College there was no thorough examination of candidates.

The study of history is most worth pursuing when the consideration of the past can be made useful to us in the present. The lesson, '*Ars longa, vita brevis*,' is plain enough wherever we contemplate the attempts of men to learn and to teach medicine. Further than this, we may learn that only those subjects become really valuable to the student, in which he has sought out things for himself, so that his knowledge does not rest on the dicta of a teacher.

Last, we may conclude that medicine in itself, with its essential preliminary, anatomy, contains sufficient opportunities of training in every form of

observation and of logical deduction from what is observed, and that, for the rest, a mind which has been opened by a sound literary education is that best adapted to follow the lifelong study of medicine which is the duty of every physician. These are the conclusions to which I have been led by a study of the history of the education of physicians in London from the time of John Mirfeld to that of Edward Browne, from the Middle Ages to the time when the methods of study which we now follow began to be used.

## LECTURE III

### THE HISTORY OF THE STUDY OF CLINICAL MEDICINE IN THE BRITISH ISLANDS

MR. PRESIDENT, Censors, and Fellows of the College,—To us who have spent the greater part of our lives in the observation of patients, and in teaching in the wards of hospitals, the study of medicine appears to be essentially clinical. We know that reading, meditation, laboratory work, even investigations in the post-mortem room, are insufficient to make a physician without prolonged observation of patients in every condition of disease. Sydenham's firm conviction of the importance of spending as much time as possible in observation at the bedside and in meditation makes him, in his writings, appear negligent of the opinions of the men who before his day had given their lives to the study of medicine. He mentions Hippocrates about a dozen times and Galen once, Diemerbroek and Botallus, and twelve other writers on the plague, and hardly any other authors except some of those whose living conversation he had enjoyed. Dr. Robert Brady, the Master of Caius from 1660 to 1700; Dr. Henry Paman, Public Orator at Cambridge; Dr. Charles Goodall, afterwards President of this College; and one Oxonian, Dr. William Cole,

—these, and Dr. Thomas Short, are addressed as men who understood his aims and appreciated his work, and show that, original as he was, he liked to feel that he had brothers in the world of learning in his day. Brady was a man both of active life and continuous study. He was head of his college and a Fellow of this College, and in practice, and he was for a time keeper of the records in the Tower, and wrote a careful history of England and a treatise on cities and boroughs. He was Regius Professor of Physic at Cambridge, and member for the University in two Parliaments. Paman was a pupil of Sancroft at Emmanuel College, Cambridge, for whom in good and bad fortune he retained a friendship throughout life. He kept a medical act for his degree before Glisson at Cambridge, on the subject that a very light diet is suitable in acute diseases. It is proof of his scrupulous character that he gave up a valuable post rather than take the oath of allegiance to King William III. Goodall was a Cambridge man who was Gulstonian lecturer, Harveian orator, and President here. His works on this College show his minute acquaintance with its history and his own letters his general learning. Cole wrote on intermittent fever, a treatise which is praised by Blackmore in a long Latin poem in the form of a dialogue between Jupiter and Apollo. Cole admired Glisson, but resembles him in a turn for scholastic argument without having Glisson's talent for original observations. He was a copious writer, profoundly interested in medicine, but adding



nothing to it. Short is the physician to whom Sydenham's famous passage on posthumous fame is addressed.

For I do not much esteem public applause, and truly what matter is it, if performing carefully the duty of a good citizen and serving the public to my own prejudice, I have no thanks for my labour? For if the thing be rightly weighed, the providing for esteem, I being now an old man, will be in a short time the same as to provide for that which is not. For what advantage will it be for me, after I am dead, that eight alphabetical elements, reduced into that order that will compose my name, shall be pronounced by those who can no more frame an idea of me in their minds, than I can now conceive what those are to be; who will not know such as were dead in the foregoing age; and perhaps will have another language and other manners according to the inconstancy and vicissitude of all human affairs?

Among the mental associates of Sydenham must also be mentioned Locke, whose relations with him are well known, though none of the writers on the subject have, I think, compared their mutual esteem with that of Harvey and Hobbes. The study of both the political philosophers was the human race, and both desired from it to ascertain the principles applicable to their own age and country. The *Leviathan* and the *Two Treatises on Civil Government* were both scientific treatises in which the attempt was made to deduce the rules of government from observations of what had happened in past times and in their own.

The medical mind, which is perpetually engaged

in the observation and consideration of man in every aspect of his individual life, naturally interested such philosophers, whether considering political problems or the special questions of metaphysics. The mental relation was the closer in each case because both Hobbes and Locke felt the charm of natural science, and admired the weighing and measuring and other considerations of the observations of the senses which directed the habitual frame of mind of Harvey and of Sydenham.

When Paracelsus began his lectures at Basle by flinging into a burning brazier the works of previous famous teachers of medicine, he must be considered as desiring to exalt his own teaching at the expense of theirs, but this was not the feeling which prevented Sydenham from mentioning other opinions than his own. He did not undervalue his predecessors. His care for some of those who had thought much on his subject in his own time shows the contrary, but he was impressed with the shortness of life, as every man must be who has tried to become deep in any subject. One of the greatest of modern men of learning at Cambridge migrated from this life as he was sitting at night by the fire in his rooms in King's College. On a table in the room was a series of fifty learned notes which he had just completed, and round the border of the title he had written : ' Whatsoever thy hand findeth to do, do it with thy might ; for there is no work, nor device, nor knowledge, nor wisdom, in the grave, whither thou goest.' On the manuscript

of Sydenham's notes, which is in the possession of the College, the author has written the same sentence from Ecclesiastes. It was a thought constantly in his mind, as is shown by several passages in his writings.

In his practice of omitting any discussion of the opinions of others Sydenham makes one exception, 'the divine old man,' Hippocrates, whom he never mentions without respect. He recognized that in the Hippocratic writings medicine rested upon the observation of patients, and that thence must be drawn all those conclusions as to the preservation of health and the prevention or the treatment of disease which are the ultimate objects of our study and practice. 'Hippocrates,' says Sydenham, 'better understood and more accurately described the History of Diseases than any one that came after him.'<sup>1</sup> Yet the true spirit of observation is obvious in Galen, and was not extinguished in the Middle Ages. We cannot read Avicenna or Rhazes without feeling that, however different the hypotheses on which they worked from those of to-day, they were nevertheless men who wished to find out the origins of diseases, and who were fitted by their habits of thought to add to knowledge.

While the great physicians of those ages differed less in their mode of thought from modern men of science than is supposed by those who have not read their works, this was not the frame of mind of all who practised the medical art, or even of most

<sup>1</sup> *Of the Irregular Small-pox*, p. 172.

of those who wrote on medicine. For all but a few, medical study was to read the works of authority and to fit cases under the headings given in such treatises, while medical writing consisted in producing fresh books by extract and abstract from previous books. Quotation marks were not in use, and every one who has perused many of the writers on medicine of the Middle Ages knows how difficult it is to isolate any original remarks of the actual writer. Though in one page of a manuscript you may find statements made with the authority of Rhazes, Avicenna, Isaac, Constantin, the Philosopher (as Aristotle is generally called), Dioscorides, or Galen, this is no proof that other statements on the same page may not also be the author's version of what he has read, and not his original observations. It is only a very few of the scientific writers of the Middle Ages who, like Roger Bacon, are mainly original; the books of a few more contain some little original matter, 'thin in their authors,' as Dryden says, and the majority are commentators and compilers only. The immediate effect of the revival of learning was to introduce the age to the great teachers of the past, and men had to go to school to them for some time before they were by them brought back to nature.

Greek literature, including, of course, the medical writers, was the influence which predominated in this College at its foundation. To it the greater part of the hours of study of Linacre and Clement and Wotton was devoted. The illustrious Bentley



in his old age, when Mrs. Bentley lamented that he had bestowed so great a portion of his time and talents upon criticism instead of employing them in original composition, acknowledged the justice of her regret with extreme sensibility, and remained for a considerable time thoughtful and seemingly embarrassed by the nature of her remark. At last recollecting himself he said: 'Child, I am sensible that I have not always turned my talents to the proper use for which I should presume they were given to me: yet I have done something for the honour of my God and the edification of my fellow creatures. But the wit and genius of those old Heathens beguiled me, and as I despaired of raising up myself to their standard upon fair ground I thought the only chance I had of looking over their heads was to get upon their shoulders.'<sup>1</sup> I can imagine that some of the physicians of the Renaissance may at the end of their lives have had feelings like those of Bentley.

Caius was the first to write an original description of disease as observed in his own time, yet his *Liber de Ephemera Britannica* contains no series of clinical observations, and he is content to give a general account of the epidemic, of its prognosis, and of the treatment adopted.

The description of the symptoms of the sweating sickness is not connected with any particular cases, and is mixed up with pathological hypotheses con-

<sup>1</sup> Wrangham, *British Plutarch*, where Cumberland seems the authority for the statement.

cerning them ; yet it was the first description of a disease from nature which had been written in England. The preface is dated at London, January 12, 1555, and as Caius was then living in St. Bartholomew's Hospital, the book was probably written within its walls. Caius was satisfied that no account of the disease was to be found in Hippocrates or Galen, and he made his description from what he had seen. The substance of what he says about the sweating sickness is—at the onset the disease attacks in some patients the neck or shoulder, in others the thigh or the arm ; in some there is a feeling as if a breath of warmth swept down those members. At the same time a sudden and copious sweat takes place without obvious cause. First the inner parts grow warm, then burn, and thence the heat is diffused to the outer parts. There is great thirst and restless tossing about. The disease attacks the heart, liver, and stomach. A severe headache follows all these symptoms, then rambling and talkative delirium, then faintness and almost irresistible inclination to sleep. For the disease has a kind of sharper poison which moves the mind with madness and oppresses it with heavy sleep. Again, in other cases sweat is repressed at the beginning, the limbs are more lightly chilled, but afterwards the same sweat bursts out, but heavy in odour, of another colour by reason of the humour, in quantity immediately after diminished, then again increased, in substance dense. In some there is nausea, in others vomiting, but this in very few and almost

entirely in those filled with food. All have heavy and frequent breathing and deeply groaning voice. The urine is lighter in colour, thicker in substance, uncertain in relief, otherwise natural. The pulse excited, rapid. These were the sure signs of the sickness.<sup>1</sup>—The defects of Caius's book are the absence of a discussion of the morbid anatomy in explanation of the phenomena and the comparatively small space given to the description of the symptoms in proportion to the many pages of hypotheses on the relation of the disease to the general scheme of fevers and on its origins. Yet it was the first step in clinical medicine in England.

Gilbert was aware of the importance of applying in medicine precise scientific methods of observation such as led to his great discovery in physics, but while it is certain that his acute and observing mind must have had but one method in all its proceedings, he has left us no records of observations in clinical medicine.

Harvey had made some notes of patients, as is shown in the manuscript of his lectures on the circulation. He had watched the progress of a suppurating hydatid of the liver in a patient at St. Bartholomew's, 'Apostema ingens per multos menses ex pure foetidissimo 2 or 3 gallons et aqua cum viscosis panniculis convolutis as glew stepened in water or Isonglass : regressum Hospitali,'<sup>2</sup> and

<sup>1</sup> *Johannis Caii, Liber de Ephemera Britannica.* Ed. S. Jebb, M.D. London, 1721.

<sup>2</sup> *Prelectiones Anatomiae Universalis* (1886), Autotype f. 39 b.

had also observed the increase of the liver in a man with caries of the spine accompanied by long-lasting abscesses—as we should say, a case of amyloid disease, ‘*sic magnitudo Jon Bracey Ingen-tem as bigg as an ox liver : liver grown : macilentissimus curvatus pro Imbecillitate moriens ex fistulis.*’ There were probably many clinical notes among those papers of his, the loss of which has so often been deplored, for almost every man who has devoted himself to morbid anatomy has also made observations in clinical medicine. Is not this plain in the writings of Morgagni, of Matthew Baillie, of Louis, of William Jenner, and of Wilks.

Besides the traces of clinical observation in Caius and in Harvey other fragmentary proofs of its use may be collected. The works, for example, of William Clowes, surgeon to St. Bartholomew’s Hospital in the reign of Elizabeth, contain many passages which show how carefully he observed his patients, though he evidently writes down the general result in his memory rather than anything noted day by day. He was good at telling a story rather than at recording an observation.

The first physician in England whose writings show him to have devoted himself to minute clinical observation is Sir Theodore Turquet de Mayerne, who was elected a Fellow of this College on June 25, 1616. He was the first person in England learned in all medicine, and himself a part of the learned world of his time, who made many elaborate clinical studies. This great man was born



at Mayerne, near Geneva, on September 28, 1573, of a learned family, and you cannot go into the University library at Cambridge without being reminded of the godfather whose name he bore, the great scholar Theodore Beza, who gave to the University the ancient codex of the New Testament called after him. A notebook of Mayerne's, when in the second class at school at Geneva in 1585, is among the Sloane manuscripts,<sup>1</sup> and shows that the variety of tastes and assiduity of study which his mature writings display were already to be observed in him at the age of twelve years. The book begins with many pages of notes 'de dialectica', on logic. These are followed by notes on processes of distillation with well-executed drawings of stills and other apparatus. At the end he has written out a French pastoral play. The scenes and dialogues in which Tonion bergère and Lysette, Clovis, Florus, and Daphnis take part, contain nothing which might not have been written by an ingenious boy, but Mayerne does not state that he composed it. He clearly was interested in it. It is probable that the drawings and the play may have been written rather later than the logic. After his school education he studied at the University of Heidelberg for four years and then at Montpellier, where he graduated M.B. in 1596 and M.D. in 1597. He settled in Paris, and early in his career had some medical controversies with the physicians there out of which he emerged with credit to himself. He had been

<sup>1</sup> Sloane MS. 2013.

attacked for using chemical remedies to which the Galenists of the time objected, and in a well-expressed reply he showed that his prescriptions were both useful and in accordance with the principles and practice of Hippocrates and Galen. Mayerne went on with his work in spite of much opposition from his seniors. He felt some scorn of his opponents, since in one of his notebooks begun at Paris in October, 1602,<sup>1</sup> he has written a list of fourteen patients who had been left to die by the physicians of Paris or by others, but were restored to health by him and by Riverius, the King's physician. Sixteen long notes of this period of his practice have been printed.<sup>2</sup> Before he left Paris opposition seems to have ceased, and he had become physician in ordinary to the King of France. In 1606 he was taken to England by a patient whom he had cured, and received the degree of M.D. at Oxford. He did not, however, settle in London till 1611, when he was desired to come by letters patent under the Great Seal and was appointed first physician to James I. His profound knowledge of his profession and great ability and general learning at once secured for him the friendship of this College. The first case after he came to England of which he has preserved a note is that of Sir Robert Cecil, the Earl of Salisbury, who, like his descendant in our time, was first Minister of the Crown. Mayerne saw Cecil at Salisbury on

<sup>1</sup> Sloane MS. 2089, f. 23 a.

<sup>2</sup> *Opera* (ed. Browne). London, 1701.

August 1, 1611, and evidently thought ill of his case. He describes a large hard abdominal tumour occupying nearly the whole hypogastrium on the right side and associated with prolonged diarrhoea—probably a new growth of the caecum. The symptoms and their meaning are discussed in six folio pages of print of two columns each and the treatment in twelve and a half columns, and it is evident that while Mayerne expresses the wish that careful management may do something for the patient he was not hopeful of recovery. The earl died on May 24, 1612.

Mayerne was consulted during the fatal illness of Henry Prince of Wales in 1612, and drew up an excellent account of the symptoms, treatment, and post-mortem appearances, from which, as I have elsewhere shown, it is easy to establish that the Prince died from enteric fever, of which there was an epidemic in London at the time of year at which at the present day enteric fever is almost invariably present in this city. So excellent are the notes of Mayerne that it is fair to say that nothing but the pathology of his time prevented him from being the first recognizer of enteric fever. Many, he says, had a similar fever in the summer of 1612. It usually began like a tertian, but soon became a continued fever. In those who recovered it lasted a long time. Delirium, stupor, and convulsions often occurred. Haemorrhage sometimes ended the case. There were spots like flea-bites in many cases. The disease was not contagious, nor did one

infect another, but sometimes many were sick at the same time in one house.

The memoir which he drew up in December, 1623, on the health of James I is a good example of Mayerne's method. It exists in his own characteristic handwriting in the British Museum<sup>1</sup>, and is in Latin. I may give sufficient of its substance to show its nature without fatiguing you by a literal translation of the whole.

James the First, King of Great Britain, was born at Edinburgh in the year 1566, on June 19th, at half-past eleven in the morning, and is now aged over 57 years. He had a drunken wet-nurse and was suckled for about a year. He has a very steadfast brain, which was never disturbed by the sea, by drinking wine, or by driving in a coach.

(The badness of the roads and the rude construction of vehicles must have at that time often caused sickness from oscillation in travellers.)

He is easily affected by cold and suffers in cold and damp weather. His chest is broad and well formed, and the vital parts contained therein have strong and lively warmth and never are afflicted unless as a result of morbid conditions elsewhere. In this way it happens that his lungs are often attacked by fluxion, the material of which is swiftly thoroughly matured by the power of a very warm heart. The liver naturally good, large, of much blood, warm, liable to obstructions, and inclined to

<sup>1</sup> Sloane MS. 1679. I have given the original in the Appendix, as it has not been printed before.



generate much bile. The spleen now easily heaps up melancholic juice, the presence of which is indicated by various symptoms. There is no swelling in either of these viscera and no hardness. Each hypochondrium is soft and never distended, except with wind. The stomach is always ready for the burden of a large quantity of food and is prompt to get rid of any hurtful excess, chiefly by the bowel. He has naturally a good appetite and duly digests a sufficient quantity. He very often thirsts and often swells out with wind, of which imperfect digestion or fermentation is the origin. Bowels uncertain; the discharge soft and fluid. The mesentery is apt to be obstructed in the wanderings of its vessels. Kidneys warm, disposed to generate sand and gravel. His legs seem not strong enough to sustain the weight of the body. His habit loose and of pervious texture, and he readily heats with dry heat. Skin thin and delicate, so that it itches easily. Fauces narrow, causing difficulty in swallowing, which defect is hereditary from his mother and grandfather, James V of Scotland. Animal and vital faculties blameless. All functions naturally good, but perverted on occasion and most from disturbance of mind. As to non-naturals:

*Air.*—His Majesty bears all changes of air fairly well; in damp weather with a south wind he is attacked by catarrh.

*Food.*—As regards food he does not much amiss except that he eats no bread. He generally takes roast meats. Owing to want of teeth he does not

chew his food but bolts it. Fruit he eats at all hours of day and night.

*Drink.*—In drink he errs as to quality, quantity, frequency, time, and order. He promiscuously drinks beer, ale, Spanish wine, sweet French wine, white wine (his normal drink), and Muscatelle wine (whence he has diarrhoea), and sometimes Alicant wine. Nevertheless, he does not mind whether wine be strong or no so it be sweet. He has the strongest antipathy to water and all watery drinks.

*Exercise and rest.*—The King used to be given up to most violent exercise in hunting. Now he is quieter and lies or sits more, but that is due to the weakness of his knee-joints.

*Sleep and waking.*—He naturally sleeps ill and restlessly, and often at night he is roused and calls the valets, and sleep does not return unless, as often, it takes him by surprise while the reader is reading aloud to him.

*Affections of the mind.*—His mind is easily moved suddenly. He is very wrothful, but the fit soon passes off. Sometimes he is melancholy from the spleen in the left hypochondrium exciting disorders.

*Excreta.*—He often blows his nose, sneezes very often. Does not spit much unless from catarrh. Stomach easily made sick if he retains undigested food or bile. Vomits with great effort, so that after being sick his face appears for a day or two spotted with red spots. Much wind. Vapours from his stomach precede illness. The alvine discharge is uncertain and depends on the nature of his food,

which often produces morbid changes. A tendency to looseness gets rid of a burden produced by what he has eaten.

Urine generally normal and sufficient. Often sandy sediment after a time. Sometimes friable calculi or rather agglutinated grains of sand are sifted out. He sweats easily owing to the thinness of his skin, especially at night, after exercise, after copious meals. He is impatient of sweat as of all things. From the year 1619, after a severe illness, in which leeches were applied, has had a copious haemorrhoidal flow almost daily. If this does not occur the King becomes very irascible, melancholy, jaundiced, glows with heat, and his appetite falls off. When the flow returns all things are changed for the better.

*Former illnesses and present aptitude to various morbid dispositions.*—The King to the sixth year of his age was not able to walk, but was carried about, so weak was he from the bad milk of his drunken nurse. Between the second and fifth year he had small-pox and measles. In his fifth year for twenty-four hours he had suppression of urine, nevertheless no sand or slime was ejected.

*Colic.*—He often has colic ; this was worse before he was twenty-four ; it afterwards became milder. Fasting, sadness, cold at night produced it. It is relieved by the converse. Cholera often, and when young almost every year he was seized with cholera morbus, with shivering preceding sickness and bilious diarrhoea.

*Diarrhoea*.—He has been liable to diarrhoea all his life; most in spring and autumn, most of all from about the end of August or beginning of September, after eating fruit, sometimes with fever, sometimes without. Before this diarrhoea he almost always has depression of mind, sighing, dread of all things, and other melancholic symptoms. In 1610, at the end of Parliament,<sup>1</sup> after great sadness, diarrhoea for eight days, with watery bilious, very fetid, and at last black excreta. Cardialgia, palpitation, sighing, sadness, &c. Vomiting recurring twice or thrice a day. The King regained his health after proper remedies.

In 1612, December 4, after the death of his son, a paroxysm of melancholy—an attack of illness ending in diarrhoea lasting a few days. 1619, after the Queen's death, pain in joints and nephritis with thick sand. At Royston continued fever, bilious diarrhoea, watery and profuse throughout the illness. Hiccough for some days. Aphthae all over mouth and fauces, and even the oesophagus. Fermentation of bitter humours boiling in his stomach which, effervescing by froth out of his mouth, led to ulceration of his lips and chin. Fainting, sighing, dread, incredible sadness, intermittent pulse. Nevertheless, it is to be noted as to this intermission of pulse in the King that it was frequent. Nephritis,

<sup>1</sup> Parliament was dissolved Feb. 11, 16 $\frac{10}{11}$ , after much sharp discussion about the King's favourites and without making the pecuniary arrangements he desired. James was highly irritated.



from which, without any remedy having been administered, he excreted a friable calculus, as was his wont. The force of this, the most dangerous illness which the King ever had, lasted for eight days. Remedies were used with success. After that illness for two years the King was fairly well and free from other, even his usual affections ; afterwards, as was his wont, diarrhoea recurred, but was less severe.

This year 1623, at the end of autumn, it lasted for two or three days, and was excessive. After this arthritis, and after this, after an interval of three weeks, he was able to walk without help, while before for months he had had to sit in a chair and be carried or be helped along by the support of others. The happy effect of the spontaneous evacuation is to be noted.

Our King is easily attacked by catarrh descending from the brain and producing coryza. Most often it attacks the lungs, and a most violent cough follows, but within two or three days maturation occurs and the cough ceases, and the humour thick and black is rejected from the bronchi.

*Fever.*—He rarely has fever, and if any it is short and ephemeral.

*Jaundice.*—Easily comes on if he is in any way out of sorts, whether in mind or body. Often his eyes grow yellow, but it soon passes off.

*Haemorrhoids.*—Some loss of blood nearly every day, with sometimes prolapse and tenesmus.

*Nephritis.*—Many years ago, after hunting and

long riding, he often had turbid urine and red like Alicant wine (which are His Majesty's words), but without pain.

July 12, 1613, bloody urine, with red sand, soon faeculent, and with thick sediment. *Ardor urinae*, pain in the left kidney; frequent vomiting and other nephritic symptoms.

The same, but worse, August 17. In 1615, October, the same symptoms. His accustomed flux relieved all these paroxysms. Afterwards the evil often renewed, and in some of the accessions calculi or rather concoctions were ejected, and soft sand adhering together with imperfect cohesion, and then the attack came to an end.

*Arthritis*.—Pains many years since invaded first the right foot, which had an odd twist when walking, and from a wrong habit of steps had a less right position than the other, and grew weaker as he grew older. Afterwards occurred various bruises from knocking against timber, from frequent falls from horseback, from the rubbing of greaves and stirrups and other external causes which the King ingeniously discovered, and exactly noted, that he might baffle the accusation of internal disorder on the part of his physicians.

Pain of his right foot used to afflict him most often; not the toes, not the joint of the foot with tibia, but underneath the external malleolus. All the same, I have observed that the whole foot has more often swelled, and so much weakness from pain remained, that for several weeks he had to

give up usual exercise, and was compelled to stay in bed or in a chair. At last, in the year 1616, this weakness continued for more than four months, with oedematous swelling of the whole skin and of both feet. In following years it happened that the pain went on to joints of other parts, the great toe of the left foot and the malleoli to both knees and shoulders and hands, sometimes not always with redness, more often with swelling. The pain is acute for the first two or three days. By night it rages now worse, now milder; weakness succeeds, which is neither subdued nor disappears till after a long course of days. In winter time the arthritis is much worse, nor are the joints free till the return of the sun and summer warmth restores health to his Majesty.

Thrice in his life he was seized with most severe pains of the thigh, very recently on October 28, 1623, as if by a spasm of the muscles and tendons bending the left leg by a vaporous influence most pertinaciously twitching those parts in the hours of the night. The leanness, and so to speak atrophy, of his legs were to be noted as due to the intermission of exercise not calling the spirits and nourishment to the lower parts which from childhood were slender and weak.

The King when coming into England from Scotland, falling from his horse, broke his right collarbone. Another time, from a fall, he suffered from a bruise of the left scapula. He was completely cured. From that time nevertheless, there was

descent of humours into his right arm, whence arose swollen glands like the phlegmatic excrescences of scrofula, which first swelled with redness and pain, then subsided, and at length suppurating, formed ulcers that were healed after a long time.

It is to be noted that from the same humours, or perhaps from arthritic juice descending, a tumour appeared two years later on his right olecranon, distended with wind and serum, which happily ceased after proper remedies without breaking the skin. Once having bruised and almost broken his ribs on a fall from his horse, for three days he had slight fever. He recovered without blood-letting.

Another time the fibula of the other leg was squeezed by the weight of a horse, with most dangerous bruising and blackening of the whole leg. He was cured without fever. He is of extreme sensitiveness, most impatient of pains; and while they torture him with most violent movements his mind is tossed, and bile flows around his praecordia, whence the evil is not relieved, but made worse.

He demands relief and freedom from pain, little considering about the causes of his illness.

*As to remedies.*—The King laughs at medicine, and holds it so cheap that he declares physicians to be of very little use and hardly necessary. He asserts the art of medicine to be supported by mere conjectures, and useless because uncertain.

Mayerne mentions other royal opinions and the King's fancies about various drugs. He would never allow himself to be bled. He then goes on



to say what should be done, and what is chiefly to be remembered in treatment of the King in every circumstance likely to arise. This excellent account shows how Mayerne behaved as a clinical observer—noting everything; considering no point of the patient's history unworthy consideration; weighing the whole in relation to treatment and to prognosis. It was his invariable method. He began by a minute series of observations of the symptoms; then mentioned in succession the remedies which had been tried; then discussed and determined the diagnosis and the several parts of the prognosis; and concluded by an elaborate statement of the treatment to be adopted. That he felt the spleen is shown in his notes on Lord Salisbury, and that he examined by palpation the liver is shown by the case of M. le Natier Greffier, in which he says,<sup>1</sup> 'Hepatis qualitas non potuit explorari ob musculorum et cutis diductionem.'

Anne of Denmark, Queen of James I, was also a patient of Mayerne's, and some of his notes on her illnesses, from February 28, 1612, when she had an ulcer on her left leg, to her death on March 20, 1619, with cough and general dropsy, are to be found among the many pages headed 'Variæ Medicamentorum Formulae' printed in Joseph Browne's edition of Mayerne's writings. The Queen had an attack of gout at Christmas, 1612. She had swelled feet and an ulcer on the left ankle when Mayerne saw her at Laycock Abbey on May 11,

<sup>1</sup> *Opera*, p. 216.

1613. In a note which he then drew up on her state, he mentions that she was easily made angry and easily grew red in the face, that she slept ill and that her joints were feeble. She went to Bath in that year for the swelling of her feet.

Mayerne's notes on Queen Henrietta Maria,<sup>1</sup> contained in the same manuscript book, show equal care. They were written out in July, 1641, when the Queen was about to cross the sea 'to cure her mind no less than her body', says the note. Some swelling of liver and spleen, frequent swelling of the gums and painful teeth, several renal calculi, frequent cough, sleepless nights only soothed by syrup of poppy (never by laudanum), herpes of the upper lip, occasional inflammation of the right eye, and of the eyelids, recurring headaches, curvature of the spine, the arm and hand of the right side thinner than those of the left, extreme general wasting and, as regards affections of the mind (*animi pathemata*), anger violent but brief, long sadness, frequent tears.

The details of all these are carefully recorded, and besides showing the excellence of Mayerne's clinical observation present to us a picture of the Queen of Charles I, which placed beside the lady so thin and pale, with some grace, but no cheerfulness, in the pictures of Vandyke, enables us to understand how her troubles in the world must have affected her, and leads us to judge leniently any defects of manner or disposition in her, and to attribute them not to

<sup>1</sup> Appendix.

a fiendish nature, as did her political opponents when they applied to her the words in which Aeneas denounces Helen as he describes how he found her hiding on the night of the taking of Troy—

Troiae et patriae communis Erinys,

but in great part at least to a physical condition which must have greatly detracted from her enjoyment of life.

In Mayerne's notebook there is a blank page with a heading which shows that it was intended for notes on the health of Charles I. A friendly letter, dated February 3, 1636, to Harvey, then at Newmarket, is printed in Mayerne's works<sup>1</sup> on the illness and best method of treatment of the Elector Palatine. The confidence which Charles I and his Queen felt in Mayerne is shown by two letters which he has copied into his notebook. The heading is

πάντα σὺν θεῷ, ἀμήν

—the history of a journey to Exeter<sup>2</sup> undertaken to restore the health of the Queen, then seriously ill. He left London on May 21, 1644, with another physician, Sir Matthew Lister, and carried in the Queen's coach, they reached Her Majesty at Exeter, on May 28. These royal letters are so little known

<sup>1</sup> *Opera*, p. 361.

<sup>2</sup> 'Accersitus per Regis et Reginae literas Londino Excetrium unacum muneris in Aula socio, et viae comite, Equite Matthaeo Lister, itineri me commisi 21 Maii 1644 cum ductore a Regina misso qui sumptus omnes faceret et ministraret omnia necessaria Archibaldo Hay. Ita Reginae rheda vecti pervenimus ad E. M. die mensis 28.'

that I may add their words. The Queen's has, I think, not been printed before.

Exeter ce 3 May,

Monsieur de Mayerne, mon indisposition ne me permet pas d'escrire beaucoup, pour vous prier de venir si vostre santé vous le permet, mais mon mal vous y conuie plus comme j'espere que ne feroit beaucoup de lignes. C'est pourquoy je ne diray que cela, ayant tousjours dans ma memoire les soins que vous aués eu de moy dans mes besoins, qui faict que je crois que si vous poués, vous viendrés et que je suis et seray tousjours

Vostre bien bonne mestresse

et amie,

HENRIETTE MARIE R.

The letter of the King was sent from Oxford by William Muray to London.

Mayerne—Pour L'amour de moy allé trouuer ma Femme. C. R.

Many other of Mayerne's clinical descriptions of patients are as good as those of these royal persons. That on the first Earl of Abercorn, made on September 26, 1616, when the Earl was aged forty-one years, gives an admirable account of his history and of the physical and mental phases of his life.

Mayerne left his library to this College from loose papers in which some fragments of his works were published, but it was not till 1700 that a volume in folio of his notes was printed by Dr. Joseph Browne. He selected such parts as he thought Mayerne would have wished to print, or Bonetus of Geneva, to whom Mayerne had sent the first fasciculus to get it printed. The printing was



delayed, and Bonetus sent the book back to the author, and urged that he should publish all he had written, and not only selections. A great part of the College agreed with Bonetus when, long after Mayerne's death, the question of printing arose. The Censors referred the matter to Dr. Charleton, who took a different view, and wanted to recast the whole. Browne wisely decided to issue the papers unaltered. His book contained full notes of more than forty cases observed by Mayerne, with letters about seven more, the report and papers about the case of Henry Prince of Wales, a letter to the King's physicians about the health of James I and Charles I, then Prince of Wales, the letter to Harvey at Newmarket on the health of the Elector Palatine, and a long series of notes on the illness of Isaac Casaubon, in which are incorporated the notes of Raphael Thorius, the author of the poem on tobacco, who attended him. Notes on pharmacology and a long series of prescriptions for King James, King Charles, and Queen Henrietta Maria are also printed and some notes on her health.

Mayerne seems not to have been unwilling to treat any symptom, however slight, and this arose not from any mere complaisance to the King and Queen, but from the fact that to his keen observation nothing seemed trivial. If he sometimes humoured his patients, he never allowed their high station to obscure his thorough investigation of their symptoms or view of their characters in relation to their physical frames. It was surely harmless when

King James swore he hated to be anthropophagous—to give him powdered ox bones instead of cranium humanum, a remedy then highly estimated.<sup>1</sup>

A great part of Mayerne's papers became the property of Sir Hans Sloane, and are now in the Sloane Collection in the British Museum. They show not only Mayerne's industry as a clinical observer, but his extensive learning and constantly studious mind. Twenty-three volumes of his notes of varied kinds have been preserved, and these, together with those printed by Dr. Joseph Browne, are the material for our estimate of him as an observer. His general plan was to divide the notes into two parts; the first, called *Theoria*, gives an account of the history and symptoms, and the conclusions drawn from them; the second, headed *Curatio*, deals with the treatment in great detail, and to increase the clearness of this he sometimes adds a *recapitulatio ordinis agendorum*.

Sir T. Mayerne's portrait hangs on our staircase<sup>2</sup>. In the dining-room is that of Francis Glisson, President in 1667. He is the first English writer of a complete account—that is, an account, both anatomical and clinical, of a particular disease. *Tractatus de Rachitide* appeared in 1650. It deserves high praise as an example of clinical observation as

<sup>1</sup> In rege qui ἀνθρωποφαγία odit, Cranium humanum in ossium Bubulorum Rasuram poterit permutari.

<sup>2</sup> In the British Museum there is a magnificent drawing of him by Rubens, probably done between 1630 and 1640. The head is in oils and finished with extraordinary vigour and perfection. The rest of the portrait is in crayon.

well as of pathological anatomy. Glisson's method consisted in placing side by side all the facts relating to the disease he was studying. He does not allude by name or number to particular patients, yet shows by the precision of his statements that each rests upon many carefully noted observations. He collects the symptoms of rickets under three heads: *diagnostica*, which demonstrate its presence; *diacritica*, which distinguished the varieties; and *prognostica*, which presage the issue of the disease. The thorough discussions of terms, and the minute and precise arrangement which he follows, give a scholastic appearance to his pages which is apt to make any one who merely glances at his book think that Glisson is less an observer of nature than he really is. When he discusses the diagnostic signs he does so under five heads: (1) symptoms which have to do with the animal functions; (2) those which have to do with irregular nutrition; (3) those which have to do with respiration; (4) those which belong to the vital influx, as we should say, to the circulation; and (5) certain indefinite symptoms not belonging to the above classes. Under the first head he places flabbiness of the muscles, weakness, and sluggishness, and describes each with admirable clearness and entirely from clinical notes. 'If,' he says in the section on debility, 'children are affected within the first year or thereabouts, they stand on their feet later than usual owing to that debility, and often speak before they walk, which is generally thought by the English to be of evil omen. If

children are attacked by this disease after they have learned to walk, they stand on their feet more feebly by degrees, and when walking often hesitate, stagger from a slight cause, or even fall, nor are they able to stand long without sitting down, or to quicken their movements. At last, as the disease increases, they are deprived of the use of their feet; indeed, they can scarcely sit upright, and the weak neck sustains the weight of the head imperfectly or not at all.' Under the heading 'Symptoms due to malnutrition', he describes the large head, the feeble muscles, the enlarged wrists, the bent bones, the retarded dentition, and the pigeon breast.

Professor Virchow, in his Croonian lecture of 1893, praised Glisson as the discoverer of muscular irritability. Sir Michael Foster,<sup>1</sup> in his interesting lectures on the History of Physiology, has shown that in his *De Ventriculo* Glisson 'was the first to give the exact proof that when a muscle contracts it does not increase in bulk'. He is perpetually commemorated as an anatomist. Whoever studies his *Tractatus de Rachitide* will be convinced that he also deserves recollection as one of the founders of thorough clinical study in England.

The method of Christopher Benet in his *Tabidorum Theatrum sive Phthisios Atrophiae et Hecticae Xenodochium*, published in 1656, is similar to that of Glisson, and Benet seems to have lost his life by infection during his experiments in relation to the

<sup>1</sup> Lecture X : The Old Doctrines of the Nervous System.



sputum of phthisis, which he carefully collected and examined.

The excellent clinical method of Mayerne, in which all the facts about each patient were carefully collected, and that of Glisson, in which all the facts relating to a particular morbid condition were placed side by side and a conclusion drawn from them, were not adopted by all physicians.

A prominent example of another school is Walter Charleton, physician to Charles I, and President of this College from 1689 to 1691. His *Spiritus Gorgonicus* published in 1650, in which he treats of the causes and symptoms and cure of calculi wherever formed, is altogether different from the writings of Glisson or of Benet. He begins by discussing petrification in the outside world, and thence goes on to the efficient causes of petrification in the human body, and in the chapter on diagnosis the nearest approach to the report of a case is the mention of a Mr. Pinckay, commissary of the Royal Army, who had shown him fifty renal calculi which he had passed, and afterwards carried about in an ivory box. Charleton's *Exercitationes Pathologicae*, which discusses the nature, generation, and causes of almost all diseases, and was written in 1661, is in part occupied by the discussion of questions of medical expression, such as when a disease may be spoken of as malignant, or incurable, or hereditary, and how the common qualities of the tissues of the body may be defined 'Crassities, Tenuitas, Densitas, Raritas, Consistentia, Fluiditas,

Tenacitas, Friabilitas, Tensitas, Laxitas, Rigiditas, Flacciditas, Durities, Mollities, Laevor, Asperitas'. Except a case of very hard tumour of the pancreas in a woman which was accompanied by anaemia, or, as he calls it, chlorosis, he scarcely mentions any case which he had himself seen, nor is his account of even this sufficiently definite to make one sure whether the tumour was a dense new growth or a pancreatic calculus of uncommon size. How long the patient was ill is not stated, nor are the incidents of the illness. Such was the method of medicine of Dr. Walter Charleton. Dryden praised Charleton profusely, yet with some discrimination :—

Nor are you, learned friend, the least renowned,  
Whose fame, not circumscribed with English  
ground,

Flies like the nimble journies of the light,  
And is, like that, unspent too in its flight.  
Whatever truths have been by art or chance  
Redeemed from error or from ignorance,  
Thin in their authors like rich veins of ore,  
Your works unite, and still discover more.  
Such is the healing virtue of your pen  
To perfect cures on books as well as men.

Charleton's copious writings are sufficient to show that clinical study was not universally cultivated among the physicians who were contemporaries of Mayerne and Glisson. Only one man of that time outshines Glisson in the exposition of clinical medicine, and that man is, of course, Sydenham.

I need not dwell on the well-known events of the life of this great man, who, born in 1624, took his first medical degree at Oxford in 1648,

and his doctor's degree at Cambridge in 1676, and after practising in London for a little more than a quarter of a century, died on December 29, 1689.

As Mayerne may be said to have first definitely established in England the clinical study of medicine and the method of recording observations, and Glisson to have set the example of the study of the relation of the symptoms to the anatomical appearances of disease, so Sydenham may be regarded as the first who attempted to arrive at general laws about the prevalence and the course and the treatment of disease from clinical observation.

How admirable is Sydenham's account of measles, and, when it is compared with the books of his time and before, how original, how clearly he describes the onset and the method of appearance of the rash, and how well contrasts the circumstances which attend it with those of small-pox. 'The symptoms of the Measles do not abate by the eruption as in the small-pox, yet I never observed the vomiting afterwards, but the cough and fever increase with the difficulty of breathing, weakness of the eyes and the defluxion on them, with continual drowsiness and want of appetite as before.' His obvious originality is one reason for the great repute of his writings, and this originality is due not merely to his having thought differently, but also to his having seen more than his predecessors. Though Sydenham's is a general account, it is as distinctly based upon many clinical observations as

if the notes of the cases he had seen were appended.<sup>1</sup> Of the score of cases which he particularizes most are mentioned in illustration of points of treatment, but those of Thomas Chute, nephew of Lady Dacres, a young man with small-pox, and of Malthus,<sup>2</sup> the apothecary, who had a chronic arthritis, are excellent illustrations of his daily observations.

A great mind constantly occupied in arguing within itself on observations must sometimes furnish incomplete conclusions and imperfect hypotheses, and though Sydenham says when discussing the possible relation between certain visceral symptoms and the size of the pustules in small-pox, 'I do not determine; for I only write a History, and do not pretend to solve problems,' he elsewhere tries to argue out a general pathology of fevers.<sup>3</sup> 'A fever,' he believes, 'is Nature's instrument to perform the separation of some matter from the blood.' This is the process 'also in the plague'.

Charleton, had he described small-pox, would probably have done so in much the same way as Bernard or Gaddesden; some of the authors he mentioned might have been different, but he would proceed by way of scholastic discussion and quotation, and tell little of what he had himself seen. How entirely different is the method of Sydenham.<sup>4</sup>

<sup>1</sup> *Of the Epidemic Diseases from the Year 1675 to the Year 1680.*

<sup>2</sup> I suppose this Malthus was the ancestor of the political economist, since Sydenham was used as a Christian name in more than one generation of his family.

<sup>3</sup> *Of the Continual Fevers in the Years 1667, &c.*

<sup>4</sup> *Of the Regular Small-pox.*



The distinct begin with shivering and coldness, which is presently followed by excessive heat, and a violent pain in the head and back, vomiting, a great propensity to sweat (I mean in grown persons, for I never yet observed any such disposition in children, either before or after the rash came out), a pain at the cavity of the breast beneath the region of the heart, if it be pressed with the hand, dullness and sleepiness, and sometimes convulsive fits; and if these happen to those that have all their teeth, I reckon the Small-pox are at hand, which most commonly coming out a few hours after sufficiently answer the prognostication. For instance, if the child has a convulsive fit in the evening, as it usually happens, the small-pox appear next morning.

His description of the severe neuralgia which sometimes is the last symptom of a malarial fever, and his determination of the fact that it really belongs to the disease, and must be treated in the same way, is a remarkable example of his close observation.<sup>1</sup>

But here it is to be noted that I have observed a certain symptom, sometimes like a nephritic pain, as to the intolerable pain of the loins, which being wont to follow ague, arises from a translation of the febrile matter upon the muscular parts of the body, but this symptom requires no other method of cure than the ague whereon it depends, for it is heightened by frequent bleeding, or any other evacuation, and the patient's life is endangered thereby. I thought good to mention this much of this symptom, that it might not impose on any one.

The neuralgia is sometimes so severe and so

<sup>1</sup> *Of the Epidemic Diseases from the Year 1675 to the Year 1680.*

different from what has gone before, and so remote from the beginning of the disease, that it seems more like a separate morbid condition ; but Sydenham perceived its actual relation to the disease. His description of gout and of hysterical diseases and of chorea are further examples, too well known for me to quote, of the minuteness and precision of Sydenham's clinical observations. He scarcely considers morbid anatomy, but endeavours to determine the species, and ascertain the course and the treatment of diseases by clinical observation only.

This is the general method of the Hippocratic writings, and while Sydenham is often regarded as the originator of modern medicine his works might also be considered the culmination of the effects of the Renaissance.

The writings of Thomas Willis contain many cases, but it is clear that he only took a general view, and did not make frequent precise observations. After a short account he generally proceeds to pathological hypotheses, and this is so, even in his accounts of saccharine diabetes, of which he is regarded as the first describer. Willis, like Glisson, discusses the morbid anatomy of his cases. He often uses them to illustrate pathological doctrines rather than as studies in the natural history of disease. His interesting descriptions of the illness successively of five children in a family of a scarlet fever with subsequent uraemia, are perhaps the best clinical reports to be found

in his writings. His account of the case of Lord Shaftesbury, who had a hydatid cyst of the liver which was opened, when compared with the precise description of the same case by Locke,<sup>1</sup> shows that Willis often wrote from memory and not from notes made day by day. His works contain more hypotheses than minute observations.

The cases mentioned by Martin Lister, and those of some other writers of this period are too brief to deserve record as examples of clinical notes.

A clinical observer whose works show the practice of generalization from clinical observation as well as the careful records of the events of disease as observed at the bedside, is Richard Morton, who became a Fellow of this College in 1678, and died in 1698. His *Phthisiologia*, a treatise on wasting diseases, contains numerous cases showing careful clinical note-taking and judicious deduction from his observations, and so does his *Pyretologia*, a general treatise on febrile diseases. He belongs to the school of Sydenham, but he makes a more general use of morbid anatomy and describes more cases.

The physicians whom I have mentioned, Caius and Harvey, Mayerne and Glisson, Sydenham and Willis and Morton, were of course not the only clinical observers of their times. We may be certain, for example, that Lower, who so acutely reasoned on the causes of dropsy, followed the same method. Mayerne, Glisson, and Sydenham are the

<sup>1</sup> *Shaftesbury Papers* in Record Office : Note in Locke's hand.

three clinical observers of the seventeenth century whose work deserves the first place. Mayerne and Sydenham gave themselves up almost entirely to bedside observation. Glisson, while equally assiduous at the bedside, was also a morbid anatomist. Glisson's mind most naturally turned towards the discovery of pathological laws, and to questions of etiology. Mayerne and Sydenham were most occupied with the solution of problems of treatment and of prognosis. All three were close observers of nature. Glisson was a discoverer in anatomy, for he described the capsule of the liver, in physiology he first perceived the irritability of tissues, and in clinical medicine he first described completely a disease not known in the world of science before him. Sydenham had on the whole the greatest influence on times after him. Mayerne was a less man than Glisson and Sydenham, but was a great physician of vast attainments, of lifelong mental activity, and in his own time an influence to make all men bedside observers. All three observed carefully the general aspect of the patient, and the external features of his body. The breathing, the character of the pulse, the state of the tongue, the locality of pain, the indications of fever, the excreta, and the appearances of extracted blood were considered. Tumours were felt, and the degree of dropsy estimated. Any impairment of the senses or of muscular power was noted. The liver and the spleen were examined by palpation. The history



was carefully considered, and facts bearing on heredity were recorded.

This was the extent to which observation at the bedside was practised by these physicians. Mayerne seems most in personal relation to the patient, thoroughly investigating his mind and body; Glisson is most considerate of the interpretation of well-observed symptoms given by the morbid anatomy. Sydenham had always before him the endeavour to establish general laws in relation to disease, and hoped to do so by a precision of description such as that of the botanists in the description of plants. It is to Mayerne, Glisson, and Sydenham that the establishment of the study of clinical medicine in England is due.

## LECTURE IV

### THE HISTORY OF THE STUDY OF CLINICAL MEDICINE IN THE BRITISH ISLANDS

MR. PRESIDENT, Censors, and Fellows of the College,—The study of clinical medicine was established in England by the practice and the writings of Mayerne, Glisson, and Sydenham. Though Mayerne was not an Englishman by birth or education, Glisson and Sydenham were thoroughly English in habit of mind and owed, I think, nothing to any foreign influence. The admirable *Observationes* of John James Wepfer of Schaffhausen, published in 1658 and enlarged in 1678, in which he demonstrated the relation between apoplexy and cerebral hæmorrhage, was eight years later than the *Tractatus de Rachitide* of Glisson, and though the subject is set forth in different forms the scientific method of the two books is the same. Wepfer observed cases during life and explained their relation to the anatomical changes demonstrated after death, yet his book seems to have been little read in England. It is not, for example, mentioned in the controversies which arose about the attack of apoplexy which was the beginning of the fatal illness of King Charles II, nor is there the least allusion to it in the *Cerebri Anatome* of Willis, published in 1664.

The three books of observations of Nicholas Tulpius, beautifully printed by Louis Elzevir at Amsterdam in 1641, contain one hundred and sixty-

four brief but lucid notes of extraordinary circumstances or unusual symptoms of disease, amongst them the first description of the sputa of fibrinous bronchitis which he took to be the branching pulmonary veins detached from the substance of the lung; but these notes are not to be compared to the daily observations of the three great contemporaries of Tulpius in England.

In the times following those of Sydenham, six celebrated physicians, Radcliffe, Garth, Arbuthnot, Freind, Sloane, and Mead, had all great opportunities of clinical observation and understood their importance. Radcliffe showed by his magnificent benefactions how much he cared for learning and for medicine, and his reputation among physicians was chiefly due to his acute observation of disease, yet if he made notes none have survived either in print or manuscript. Sir Samuel Garth wrote little on medicine. The medical writings of Arbuthnot, though worth reading, contain no clinical notes, but those of his contemporary, Dr. John Freind, are among the best of his period. The numerous cases in his nine commentaries on fever, in his *Epistola de Purgantibus*, and in his *Emmenologia* are admirably related and often with many details. The form in which he records his cases is modelled upon that of the Hippocratic writings, yet is free from any trace of archaism. The writings of Mead contain occasional reminiscences of cases but no real notes of them, and it is, I think, obvious from the character of his *Medical Precepts and Cautions* that he made very few

clinical notes. Sir John Floyer's book, *The Physician's Pulse-Watch*, published in 1707, tended to make physicians count the pulse, a proceeding not only useful in itself but tending to encourage observation of the patient. Clinical observation was firmly established in England at the beginning of the eighteenth century as essential in the practice of medicine, and physicians became more and more addicted to it. Its perfection in precision before the development of special methods of physical observation is reached in the *Commentarii de Morborum Historia et Curatione* of Dr. William Heberden, published in 1802, the last important medical treatise in England which appeared in Latin. Dr. Heberden lectured at Cambridge on medicine, where he was a Fellow of St. John's College, before he settled in London. It is worth while to consider the reading which Heberden thought useful in the study of medicine before proceeding to consider his method of observation and the effect of his work. Some manuscript notes of his lectures made by Dr. Erasmus Darwin,<sup>1</sup> who attended them in 1752, show what books he had used, while his Commentaries demonstrate the accuracy with which he pursued clinical medicine. He had a systematic method of recording and using his clinical observations. His custom was to make notes, as far as circumstances allowed, in the sick room both of what he saw and what he was told. He read through these notes every month, and wrote into a sort of medical commonplace book under the heads of diseases

<sup>1</sup> Lent to me by Dr. Francis Darwin.



whatever seemed to him worth preserving. From the notes contained in this book, when he was seventy-two years of age, he wrote his single volume of commentaries on the history and cure of diseases. He entrusted the manuscript to his second son, and desired that it should not be published during his lifetime. He died when more than ninety years old, in 1801, and the book was then published by this son, himself a physician of repute. Nearly the whole of this remarkable book is of permanent value, so closely has Heberden recorded the sum of many precise clinical observations. Increased observations have no doubt added much to the knowledge of the diseases he has described, but in very few instances has it depreciated the value of his statements. The book is so simple in style that it is only after it has been read several times that its originality is fully perceived. Heberden owes nothing to any other writer. He does not attempt such wide generalizations as Sydenham, and his sole object seems to have been to make the experience of his long life as useful as possible to future physicians. Except that the pulse was counted the method of examining a patient in the time of Heberden scarcely differed from that of Galen in the reign of Marcus Aurelius Antoninus. Auscultation, the ophthalmoscope, the laryngoscope, electrical and other methods of examination of the nervous system, the minute examination of the blood—all these additions to the fullness of observation, besides the results which they yield, have also tended

to make general clinical examination more thorough because they detain the observer near the patient.

As the practice of precise observation has become general the importance of the regular keeping of notes of patients in hospitals has been recognized. Dr. A. J. G. Marcet, an exact writer, in his *Essay on the Chemical History and Medical Treatment of Calculous Disorders*, published in 1817, mentions that no great London hospital then kept any regular record of cases. Such records are now, I believe, carefully kept in nearly all the hospitals of London. Sydenham, who had studied the works of Ray, felt the charm of the precision to which botanists attained in their descriptions and classification—even in the state of botany before Linnaeus—and longed for a similar exact definition in medicine. In the preface of his *Observationes Medicae* there are several passages which show how much he had contemplated the methods of botany with a view to applying them to medicine. ‘First of all,’ he says, ‘it is desirable that all diseases should be reduced to certain and well-defined species with the same diligence and exactness we see used by botanists in their plant books.’ It is clear that botany had an influence upon this most famous of English medical observers, and that its study stimulated him to be laborious and exact in his observations of disease.

The study of natural history and the devotion of some excellent physicians to one or other branch of it had much effect in improving the general observation of diseases. The minute annota-

tion of the growth and structure of plants and of the life of animals cultivated in the observer a habit which caused him to study the effects and progress and treatment of disease according to the methods of natural history. The influence of botanical and zoological studies confirmed and enlarged the method of clinical note-taking already established, and thus most observers became more precise and more observers were to be found. Dr. James Douglas is a good example of this relation of the study of natural science to that of medicine. He was the first to demonstrate exactly the relations of the peritoneum to the viscera, and wrote several excellent papers of observations in morbid anatomy. He published a folio volume on *Lilium Sarniense* in 1725 and another folio on the coffee plant<sup>1</sup> in 1727, besides papers in the *Philosophical Transactions* on the flower of *Crocus autumnalis* and other botanical subjects. His *Myographiae Comparatae Specimen*, printed in 1707, shows an extensive knowledge of comparative anatomy, and his *Bibliographiae Anatomicae Specimen*<sup>2</sup> gives a concise and accurate account of all anatomical writers from Hippocrates to Harvey. He cared also for literature, and published in 1739 a text of the first ode of Horace and a catalogue of all the editions of the poet which were in his library, a long series even from the editio princeps of 1476 to the year 1739, for that learned historian, Mr. Richard Copley Christie, who also had a collection of copies

<sup>1</sup> *Arbor Yemensis Fructum Cofé Ferens*. London, 1727.

<sup>2</sup> London, 1715.

of Horace, used to say that the printed editions were sufficient in number to provide one for each year from the Augustan age to our own time.

Douglas became a Fellow of our College in 1721, and his discoveries, extensive learning, and industrious life deserve to be better remembered than they are. Even a man so learned in his own department of practice as the late Dr. Matthews Duncan did not know after whom the fold of Douglas was named. Douglas used sometimes to go round the wards of St. Bartholomew's Hospital, and there made an observation which, pursued a little further, would have placed him among the great discoverers in clinical medicine. He published his observation in the *Philosophical Transactions* for 1715. The case was one of hypertrophy of the heart with adherent pericardium, mitral and aortic valvular disease. 'I lately opened,' he says, 'a young man in St. Bartholomew's Hospital that died of the palpitation of the heart, whose violent beating and prodigious subsultory motion for some months before his death was not only easily felt by laying the hand on the region of the heart, but seen to rise and fall by raising the bedclothes that covered it, and which is almost incredible, sometimes the trembling and throbbing made such a noise in his breast as plainly could be heard at some distance from his bedside.' Douglas then describes the adherent pericardium and the disease of the mitral and of the aortic valves. The loud noise was probably that rare physical sign of which I have



met with a few examples<sup>1</sup> in the wards and out-patients' room at St. Bartholomew's, a systolic murmur of aortic obstruction loud enough to be heard without touching the patient or even stooping over him. How near did Douglas come to the discovery of the cause of cardiac murmurs.

Dr. Edward Tyson, who was elected a Fellow in 1683 and whose portrait hangs in our hall, was the first man in England who wrote monographs on the structure of particular animals. He described from his own dissections the anatomy of the chimpanzee, the musk hog, the porpoise, the Virginian opossum, the rattlesnake, the embryo shark, the lump fish, the tapeworm, and the round worm. Tyson's medical writings, which are to be found in the *Acta Medica* of Thomas Bartholinus and in the *Philosophical Transactions*, are accurate accounts of remarkable cases, two of them of illnesses in dogs. A case of a plasterer who died from changes in his lungs due to inhaling some nails which he was holding in his mouth<sup>2</sup> is also recorded by Morton.<sup>3</sup> They saw the case together, and it is interesting to discover that while Tyson's note was clearly written down at the time, Morton's has some of the dimness of a recollection as distinct from an immediate record.

Sir Hans Sloane, President of this College from

<sup>1</sup> *St. Bartholomew's Hospital Reports*, vol. xxvi.

<sup>2</sup> Tyson in *Acta Medica et Philosophica Hafniensia Bartholini*, v. 91, Hafniae, 1680.

<sup>3</sup> *Opera Medica, Phthisiologia*, p. 105, Geneva, 1696.

1719 to 1735 and of the Royal Society from 1727 to 1741, was an excellent naturalist, and is the founder of the great national collections known as the British Museum. He was born at Killileagh, in Ulster, in 1660, studied medicine at Paris and Montpellier, and graduated M.D. in the University of Orange in 1683. After his return he lived for a time with Sydenham. In early life he had enjoyed the study of plants, and his reading had made him long to see the plants and animals of the West Indies. This inclination remained after he had begun practice in London and become a Fellow of the College of Physicians and of the Royal Society. The opportunity of gratifying his wish came in 1687, when he was offered the appointment of physician to the Duke of Albemarle, then going out as supreme commander in Jamaica. Sloane perhaps hesitated for a moment as to whether it was right to interrupt his practice as a physician in London, but, remembering that the ancient physicians travelled to the regions whence came particular drugs, satisfied himself that it might be useful as well as pleasant to visit the West Indies, and accepted the appointment. He stayed in the West Indies for fifteen months and made many observations in natural history and a collection of eight hundred species of plants. He studied the zoology as well as the botany of Jamaica, dried plants, and employed an artist to make drawings of birds and plants. Sloane showed some of his plants to his fellow-countryman, Sir Arthur Rawdon, of

Moira, in the county Down, who sent a gardener to collect examples in the West Indies, and afterwards gave Sloane several further species, so that in 1696 he was able to publish a catalogue of the plants of Jamaica, in which each plant is described, its locality mentioned, and many references given to the writings of botanists. The book is dedicated to the Royal Society and to this College, and received the imprimatur of our President, Dr. Samuel Collins, and the Censors. Sloane, on his return, became involved in a great professional practice and in various official duties, and thus the publication of the large book which he had planned on the Natural History of Jamaica was long delayed. His West Indian collections and journals were the materials and he consulted Ray as to its best arrangement. The first folio volume appeared in 1707, and the second in 1725, of *A Voyage to the Islands of Madeira, Barbados, Nieves, St. Christopher, and Jamaica, with the Natural History of the last of those Islands*. It is a work full of original observation on men, animals, and plants, and even the music of the African inhabitants is noted. He records many cases of various diseases from notes made at the time, which show that he was as a medical observer worthy of the friendship which he had enjoyed with Sydenham.

The collections of Sloane were not only of objects of natural history. Besides antiquities, medals, coins, crystals, vessels of agate, cameos, seals, and gems, his bequest from which the British Museum was formed included more than 40,000 volumes

printed or in manuscript. A complete Index<sup>1</sup> to the manuscripts was only finished in 1904. As regards medicine the collection contains vast materials for the history of English medicine. Here are the holograph volumes of Harvey's *Praelectiones Anatomicae* of 1616 and of his scarcely less interesting *De Musculis* of 1627. The manuscripts of Mayerne I have described in my first lecture. Twelve closely written volumes of lectures, notes, and philosophical and medical collectanea, mostly if not entirely in the small and rather difficult handwriting of Glisson, are there, and so are the commonplace books of Sir Thomas Browne, as well as his *Miscellanies*, *Observations on Plants*, and other papers in his own hand ; and the medical notebooks and many other notes of his son, Dr. Edward Browne. There are letters of nearly all the famous physicians of England of the seventeenth century and of the eighteenth century up to the time of Sloane. There is the little filled notebook of Dr. Nathaniel Hodges, the recollection of whose death in a debtors' prison after his heroic conduct during the plague of 1666 brought tears to the eyes

<sup>1</sup> Index to the Sloane manuscripts in the British Museum by Edward J. L. Scott, M.A., D.Litt., London, 1904. The collection includes more than 3,700 manuscripts, and to have brought so complex a work to a conclusion within a reasonable time is a public service of great importance, useful to students of many kinds. If the authorities of the Museum should hereafter see fit to issue a descriptive catalogue of the MSS. on Medicine, as full as Dr. S. H. O'Grady's catalogue of the Irish MSS., it would be a work of great advantage to the study of the history of medicine in England.



of Dr. Johnson, and there is the manuscript book which Francis Bernard, who also scorned to flee from the plague, used to take round the wards of St. Bartholomew's. There is the original manuscript of the Latin poems of Raphael Thorius, who died from the plague in 1622, and of the *Anatomia Restaurata* of Highmore of the Antrum. There are many notes of cases sent up for the opinions of physicians and some accounts of post-mortem examinations. There are letters to Sloane himself from physicians and surgeons and apothecaries and patients, from men of science, from great men in the State and in the world of letters, and from people in need of help, such as Mr. Samuel Boyce, a distressed poet, who writes : ' You were pleased to give my wife the enclosed shilling last night. I doubt not but you thought it a good one, but as it happened otherwise you will forgive the trouble occasioned by the mistake !<sup>1</sup>' This collection of manuscripts is a rich mine of medical and literary information. Tyson and Douglas and Sloane were physicians whose cultivation of natural history undoubtedly had a general effect in improving by example in observation the study of clinical medicine in England. The repeated observations and the careful note-taking of naturalists were seen to be essential for the acquirement and for the increase of knowledge in medicine.

Sir Thomas Molyneux, a physician, who occupied in Ireland a position in the world of medicine

<sup>1</sup> Sloane MS. 4056.

resembling that of Sir Hans Sloane in England, was, like him, an ardent student of natural history. Molyneux was the great grandson of another Sir Thomas Molyneux, a subject of Queen Mary Tudor, who left his home in Calais when the town was taken from the English by the Duke of Guise in 1558, and afterwards settled in Ireland, where in 1590 he became Chancellor of the Exchequer. The physician was born in Dublin in 1661 and graduated there at Trinity College, to the foundation of which his ancestor was one of the contributors. In 1683, when a Bachelor of Physic, he went to Leyden to continue his medical studies, and his letters <sup>1</sup> give an interesting account of his adventures by the way and of his stay in Holland. He stayed in London and its neighbourhood from May 12 to July 20 and fell into excellent company while there. The first man of science he saw was Nehemiah Grew, the botanist, a Fellow of this College, and the earliest great discoverer in vegetable physiology, who gave him much useful information about Holland. He next visited the Duke of Ormond, who had obtained its first charter for the Irish College of Physicians in 1667, and there met Thomas Burnet the geologist, who was tutor to Ormond's grandson. He went to the house of Robert Boyle and there met Sir William Petty, the first English political economist, a Fellow

<sup>1</sup> *Dublin University Magazine*, vol. xviii. I have to thank Mr. F. W. Stronge for information about the original manuscript of the diary of Sir Thomas Molyneux, which is in the possession of a member of his family.

of our College. He saw Newton and Tyson and Evelyn at a meeting of the Royal Society, and came to know Flamsteed the astronomer. He also met Dr. Edward Browne, who told him that Sir Thomas Browne's *De Plantis Sacrae Scripturae* was about to be published. Having enjoyed the acquaintance of these heads of the world of science he was in June no less fortunate in the world of letters, for he met Dryden, then its acknowledged head. He does not say where this took place, but it was very likely at the house of Ormond, who delighted in Dryden's society. Molyneux visited Cambridge and seems to have gone into every college, to have looked at Oliver Cromwell's rooms at Sidney, to have seen Henry More the Platonist at Christ's, to have noted the growth of saffron in the district, and the fact that grey-backed crows, common in Ireland but rare in England, were to be seen in Cambridgeshire. He afterwards went to Oxford where he found the professor of physic lecturing on the first Aphorism of Hippocrates and on the shortness of man's life since the Flood and its length before. After ten weeks thus happily spent he reached Holland, and soon after settled down to work at the University of Leyden. A few months later he met Locke there and they became friends and correspondents, and the friendship of Locke afterwards extended to William Molyneux, his brother, and it was at this brother's instance that Locke printed his treatise *On Education*. Thomas Molyneux returned to Dublin in 1687 and took his M.D. degree. When the Irish

College of Physicians was reconstituted in December, 1692, he was named as one of the Fellows in the charter. He rapidly attained considerable practice and became President of the King's and Queen's College of Physicians in 1702. He published in the *Philosophical Transactions* an account of the anatomy of the sea mouse, the iridescent hairs of which he noticed on opening the stomach of a cod-fish. His also was the first accurate description of the skeleton of the Irish elk in *A Discourse concerning the Large Horns frequently found Underground in Ireland*. He published notes on the Giant's Causeway which are remarkable for their demonstration of the then new notion that it was a work of nature and not of man, and a paper in the form of a letter<sup>1</sup> to the Bishop of Clogher on certain swarms of *scarabaeus arboreus* which appeared in the West of Ireland in 1688 and continued till 1697. His medical writings are observations on conditions of his own time, on an epidemic of coughs and colds,<sup>2</sup> and on an epidemic of eye disease.<sup>3</sup> He died in 1733, and there is a fine statue of him by Roubiliac near his tomb at Armagh. He was the first great physician in Ireland, and in his excellence both in medicine and natural science and in the obvious effect of his

<sup>1</sup> Published in *A Natural History of Ireland*, by Several Hands. Dublin, 1726.

<sup>2</sup> On the Late Coughs and Colds: *Philosophical Transactions*, 1694.

<sup>3</sup> Notes on an Epidemic of Eye Disease which occurred at Castletown, Delvin, Co. Westmeath, 1701.



natural history studies upon his medical work resembled Sir Hans Sloane. The venerable hill on which is the last resting-place of Molyneux is a short day's journey from the birthplace of Sloane.

Dr. John Stearne, who became a senior Fellow of Trinity College the year before Molyneux was born, was one of the fourteen original Fellows of the Irish College of Physicians, was the chief physician in Ireland at the period of the Restoration, and a man of great learning, but no medical writings of his have been preserved.

Dr. Richard Helsham, Regius Professor of Physic in the University of Dublin in 1733, an intimate friend of Swift, is addressed by Arbuthnot in a way which shows that he must have been a physician of the same kind as Arbuthnot himself, but he also has left no medical writings from which his attainments in clinical medicine might be estimated. It is indeed difficult to collect much evidence of the regular study of clinical medicine in Ireland at any period before the influence of the Edinburgh school began to be felt there.

The object of my lectures has been to make clear the growth of clinical study in the British Islands from its commencement to the time when it was fully established as an essential part of the work of all who pursue any part of medicine : yet, having described the attainments of Molyneux, who is certainly the first great figure in medicine in Ireland, I will venture to pause in the pursuit of the particular subject of my lectures to consider

what was the earlier state of medical learning there. The history of learning in Ireland, including our branch of it, is naturally divided into two parts. One part is mediaeval and all its literature is in Irish or in Latin ; the other part is modern and, except a few Latin books, is wholly in English. The books of the modern period form a valuable part of English literature and English science. The mediaeval literature may be said to have begun with the introduction of writing into Ireland from Italy in the fifth century and to have lasted as long as Irish books continued to be produced and to circulate in manuscript only—a condition which lasted till about the end of the first half of the nineteenth century. This literature was in a language which, though it underwent progressive changes, was never, like Anglo-Saxon, permeated by other tongues so as to lose its identity. A large part of its vocabulary, its syntax, and many of its grammatical forms remained unchanged. The Irish never became a printed literature, and circulated or was preserved in libraries in manuscripts of varying kinds, some large bibliothecae, containing many varieties of composition, others containing particular treatises only. It thus presents us at the present day with a specimen of a literature unaffected by the printing press, and enables the student to observe all the peculiarities and incidents of literature before the invention of printing.

The earliest mention of our profession in this interesting literature is perhaps a gloss in a

manuscript now in the library of Karlsruhe, of Bede's treatise, *De Ratione Temporum*, which belongs to the end of the eighth or beginning of the ninth century. On folio 35A of this venerable manuscript the word 'archiater' is glossed by the Irish word *huasallieig*—that is, *huasal* noble, and *lieig* physician. Both words are found throughout literature during the thousand years which have elapsed since some Irishman in the monastery of Reichenau wrote these glosses. Diancecht, a hero who appears in ancient stories and poems, is described as a physician. In the *Dinnshenchus*,<sup>1</sup> or Hill Lore, a composition in prose and verse of which a twelfth century MS. is extant,<sup>2</sup> his name occurs, as also in the *Coir Anmann*, 'Fitness of Names.'<sup>3</sup> 'Diancecht i. ainm suithe leigis Eirenn'—Diancecht, that is the name of the learned man of physick of Ireland. In the laws with commentaries, known as the 'Senchus Mor', a physician and medical treatment are mentioned in the part which treats of distress. The levy of distress was the remedy for a great variety of wrongs. The person who had been wronged and desired to obtain justice came to the residence of the wrongdoer and sat fasting by his door. This was a sort of notice, and if no food was offered and the fasting terminated at its due period the distress claimed became greater. If the wrongdoer gave security, then the cause was in time tried by a judge.

<sup>1</sup> S. H. O'Grady, *Silva Gadelica*, London, 1892, ii. 525.

<sup>2</sup> Book of Leinster.

<sup>3</sup> Whitley Stokes in *Irische Texte mit Übersetzungen und Wörterbuch*, Dritte Serie, 2. Heft, Leipzig, 1897.

Five days' notice with one day's fasting was to be given in a variety of cases which are enumerated, amongst them 'for providing him (the sick man) a physician'<sup>1</sup> and 'for guarding against the things prohibited by the physician'. The guarding against things prohibited by the physician shows a respect to his opinion. It is further dwelt upon in a later part of the commentary. 'For guarding against the things prohibited by the physician, i. e. that the sick man may not be injured, i. e. by women or dogs, i. e. that fools or female scolds be not let into the house to him, i. e. or that he may not be injured by forbidden food.'<sup>2</sup> The physician was to give notice that this care should be taken. 'If the physician has given notice,' says the commentary, 'he is safe. If he has not given notice he is subject to fine, i. e. he is fined a young heifer, and this is divided in two between the aggressor (disturber) and the wounded man. If notice has been given by the physician then the aggressor pays the heifer to the wounded man, and the physician for his skill receives one-third of the fine.' In a summary of the occasions of exemption from distress occurs 'a man going to obtain a physician for a person on the point of death'.<sup>3</sup> In another

<sup>1</sup> Hi tairec a lega, *Ancient Laws of Ireland*, Senchus Mor, vol. i, p. 122, line 16; and Im dingbail aurcuilte a reir lega, line 18. Dublin, 1865.

<sup>2</sup> *Ancient Laws of Ireland*, Senchus Mor, vol. i, translation, p. 131.

<sup>3</sup> Dlomtar turbuid—no lega do neoch biss fri bas, *Ancient Laws*, Senchus Mor, vol. i, 266, and Harley MS. 432.



passage in the *Senchus Mor*, under the heading 'What is the distress of each sort of men of art', there is the statement, 'The distraint of a physician, let his horsewhip or his wand be taken. If he has not a complete equipment let a thread be tied about the finger next his little finger.'<sup>1</sup> The object of the peculiar distraint was probably to shame the physician into the discharge of what was claimed from him.<sup>2</sup> There are some clauses difficult from their brevity which apply to what we should call actions for malpraxis. An impartial physician is to say whether the bleeding was rightly used and the practice good or bad.<sup>3</sup>

In the Irish Chronicles physicians are mentioned from time to time, and many passages make it clear that, like law and literature, medicine was hereditary in particular families. There were many families who possessed lands in right of their profession. Some were hereditary keepers of a shrine, of a saint's bell, or of an ancient book. Of such a kind were the O'Breslans, who long kept in Donegal the bell of St. Connla Cael, now in the British Museum. Others were hereditary judges, such as the MacAedhagains, of whom, from the thirteenth century to the sixteenth, twenty-seven judges or legal authorities are mentioned in the chronicles. Others were hereditary chroniclers, poets, or public

<sup>1</sup> Caidi aithgabail each aes dana, S.M., ii. 118.

<sup>2</sup> Aithgabail lega : togthar an echlaise ocus a fraig. *Senchus Mor*, ii. 118.

<sup>3</sup> *Ancient Laws of Ireland*, Book of Aicill.



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orators, such as the Maic Conmidhe, whose first works occur in the middle of the thirteenth century and whose last representatives still lived near their ancient inheritance at the beginning of the nineteenth century ; or the famous race of O'Dalaigh, of whom more than eighty are said to have been known as poets.

These legal, historical, or medical families appear in the chronicles about the beginning of the thirteenth century, and many of them still held their lands in the sixteenth century, and some of their later descendants were to be found in their original districts in the nineteenth century, though both they and their patrons, the more powerful chiefs, had long been dispossessed. In the province of Ulster the family of MacDuinntsleibhe were hereditary physicians. They were attached to the family of O'Donnell and held lands in Kilmacrenan, the original territory of the Cinel Luidhech, or O'Donnells, who gradually conquered nearly the whole of Donegal. The MacDuinntsleibhes had been driven out of Down by John de Courcy, the Norman, and settled in the west of Ulster. Muiris, who died in 1395, Donnchadh, who died in 1527, and Eoghan his son, who died in 1586, are other members of this medical clan whose names have been preserved.<sup>1</sup> One of the family translated Gualterus on the doses of decoctions into Irish, and his manuscript is in the British Museum (Harley, 546). On

<sup>1</sup> O'Donovan, *Annals of the Four Masters*, iv. 742, v. 1389, v. 1856.



fol. 11a is the author's own note of his work. 'Here ends Gualterus' book of the doses of medicines. Cormac MacDuinntsleibhe has put this summary into Irish for Dermot MacDonall O'Line and to him and his sons may so profitable a commentary render good service. On the fourth day of the kalends of April this lecture was finished at Cloyne in the year 1459.' Other members of the family seem to have followed literature, for Maurice Ulltach, who attested the authenticity of the chronicles used by Michael O'Clery and his colleagues in the compilation of their great book of annals, and Christopher Ulltach, guardian of the Franciscan convent of Donegal in 1636, were of the same race. Ulltach means an Ulsterman, and was used for the MaicDuinntsleibhe because they had been chiefs of Down, the southern half of the region called Ulidia by Irish Latin writers, into which the most ancient kings of Ulster had been driven, and which their descendants ruled till turned out by the Normans. The family were dispossessed in Donegal at the plantation of Ulster in the reign of James I. In 1745, one of them published in Paris a long Catechism in Irish of some literary merit. Some of the race still lived in my boyhood as tenants on the lands which they anciently owned in Kilmacrenan. Part of another manuscript (Arundel 333) shows that Cormac had taken a degree, probably in some university of France. It contains the note: 'Here ends this summary and treatise upon the organs of animals from Isaac "In dietis particularibus". Cormac

*To face page 144.*







eal doye nobalt qnsm acolpa manit pnt lad am pnt mcaob amcna  
 pnt nacobis jorid por panceloma ro we maplam amgei te reht  
 ab jecomja otogadi nacor ro ambia de ro comahit ebntil col  
 nacor qnala comie fin buada mje mteandhefe pait ano a joly  
 anbt jacofme n nje gce m oim a amatal jutoem pnt jacoftm  
 f nado p jectruafat jle h p et j am m f yda pnt fca jmulto jna  
 woch brracdul pocut pnt nanell brroraco pnt pce anate uq ut  
 epele jha he p tab ane jpsund ro i sab fns et l m fns edm cat j  
 bafol e fte pante t j d tab am j bis m fnt oent eht m w i  
 f j oap mba pib paa pelet pueg m f e j et tnaeete j eunai balt  
 m bel comie de p leat q libonanaclm wib jic p e j araq jwub  
 nmjor p e j m j b q u cal mte jem p j e d m o r o u s n j e mte j o e t q  
 p n d j e p j n j f c u l m s u j e a h e l j e a j e a r c m d w p u e s a n d  
 j a p o c h j a p b r a i b a c o r n a c o d a .

**O**ne pte fca an ro j m co gna col q f j ic pnt wgnach wgnm  
 toledam b m biapagal pnt masgla cult col q f j nt masgla  
 nap a j d m j an e n a j b b a d e l y a w g n a c h w l e b a b b a j d m j a n a  
 p a m b t e p u n c e w l q j e t e j w m a n e n a j f u s t e a j j e d a a b  
 j i e d o l w b j a n f e a m a n p e o r g w i j e n a j m a s g l a c o n l s d m j u s  
 q f m t q p n h y l a t q j e j a o l j e p e a f o n j u p o a c j e d e m o j o e n  
 a m j a n a l q j e j i c p b r a n e j m q o r o r g l a p u l j o l j h n a p e a l s a  
 j e j n d e m o n e j a n a m j n u s j c o d t p e j i c p m j a r g e n u n d r a l e m  
 j m l j a c j l t p o n j a n j i c p a n c e d i a j e a n o n i d w l q j e j c o n f u c a  
 j i c p u s p i a n e o r g j i c p b i n i d m l w l w b j i c p n u n d a l l e d o l  
 w b j i c p o l y t e w l w b j i c p j n j n j n a d i a d j e c l o e o s n a p a  
 j o l e o s w b j p o b s d j q a m b i a n e j r o j i c p a n c a d e j r h e j  
 p u l a r a c t p e j e a b b a d o l w g n s j i c p l z n a u n a u l l e o s p e  
 t l a o h q j e j i c j a o l j e p o l m g n o r g w i c p e d m j n j o r g w  
 j i c p e d m j n l e o s w o l o s e j a p w l a y o r g j i c p j u s n a h l m o r g  
 m e j n i l w l c o c j r e j i c p p i n p a o o s l j a n d a t e l e w i t w  
 b j p o a b s a n d j i c p p u l h a j j i l j a n d a t e l e a n w l w j i c p  
 p o r j m w l c o c j r e j n a b u t a j n j e p u l e j j a n s w l c o c j r e  
 j i c p p m a b o r d a d w e b s p o b j a g a n d j e a r e j m o j i c p p u l  
 m i c j n b q w a l e j h i c e n n a h l e g o r g w j i c p p e l e t t a b j  
 p o b j a p p j a b o l l p e j i c p p o a m a h a l l j e a c a o j a o l q j e  
 t e j e a d j e b o j j e j e a m a c e a w o l o s e j a p j e a n g m a b w  
 j a o r g w j i c p j u s p u n e j e u l t a l l j i c p j a l o s e j a p u o j j h o r g j e

MacDuinntsleibhe, bachelor of physic, it is that has put it into Irish and written it for Denis O'Eachoidhern in this document. And let each one whom it shall profit pray for those two.' Cormac also wrote in the same bibliotheca two Aristotelian disquisitions and a small section on plants, and a short treatise on the virtues of gems, a subject often discussed in the medical books of the Middle Ages.

Nial O'Glacan, a physician who became professor of medicine in the University of Toulouse in the reign of Charles I, was born in Donegal, and from a remark in his *Tractatus de Peste*, published at Toulouse in 1629, it may be inferred that he received a medical education from one of the families of hereditary physicians and perhaps from the MaicDuinntsleibhe. He was appointed physician to the King of France, and in 1646 migrated to Bologna, where in 1655 he published a *Cursus medicus*, including six books on physiology, three on pathology, and four entitled Semeiotica. It is a mediaeval work, without any reports of cases or modern ideas.

The UiCallanains were the hereditary physicians of MacCarthy riabhach, one of the great chiefs of the south of Munster. Aonghus O'Callanain and Nicholas O'Hicidhe wrote in 1403 a version with commentary of the Aphorisms of Hippocrates, of which a small fragment is preserved. Dr. Standish Hayes O'Grady, in his catalogue of the Irish manuscripts in the British Museum, has suggested that this physician was probably the man

in whose beautiful handwriting is written a treatise entitled, 'Suidigud tellaigh Temrach,' the arrangement of the hearth of Tara, which occurs in the noble manuscript called the Book of Lismore, from its having been found in the castle of Lismore. The colophon of the treatise is: 'Angus O'Callanain has written this for MacCarthy, that is Finghin, son of Dermot, and a blessing go with it to him.'<sup>1</sup>

The UiHicidhe or O'Hickeys, of which family this Nicholas was one, were hereditary physicians of the Dal Cais, the group of allied clans who owned the northern part of Munster, long known as Thomond, and now as the county Clare. In the British Museum<sup>2</sup> there is a fine vellum manuscript which belonged to a member of this family. The manuscript contains a record of the date at which it was written.<sup>3</sup> 'The year of the Lord when this book was written 1482, and that was the year when Philip son of Thomas Barry slew Philip son of Richard Barry.' And another note shows that it was still in the possession of its original scribe in 1489.<sup>4</sup> 'I grieve for this news I hear now: that my mother and my sister are dead in Spain. A.D. 1489.' A third note<sup>5</sup> records its sale to Gerald Earl of Kildare, Lord Justice of Ireland from 1478 to 1513. 'A prayer for Gerald the Earl, Justice of Ireland, that bought this book for twenty

<sup>1</sup> 'Aonghus o Callanain do scribh so do Mag Carthaigh .i. Finghin mac Diarmada ocus bennacht leis do.' S. H. O'Grady's Catalogue of Irish MSS. in British Museum, p. 222.

<sup>2</sup> Egerton 89.    <sup>3</sup> F. 92.    <sup>4</sup> F. 95.    <sup>5</sup> F. 192 b.



cattle. Two and twenty folded skins are in this book. The rent of East Munster six score kine just come in to the Earl on the day when this computation was written. Thomas O'Mailconaire levied that rent for the earl. This year in which I am is the year of grace one thousand and five hundred years, the age of the Heavenly Lord at this time—all which above stated is true.' In the fifteenth century money was hardly in use in Ireland outside the seaboard towns, and this earl, the greatest man of the Norman Irish, paid in cattle for this fine manuscript. It is a translation of the *Lilium Medicinæ* of Bernard de Gordon, a writer of the early part of the fourteenth century and of the school of Montpellier, who was widely read, and whose works have been translated into several European languages. Thomas O'Hicidhe wrote a treatise on the Calendar<sup>1</sup> in 1589. I saw in Belfast many years ago a fine early fifteenth-century manuscript on medicine in the hand of one of the O'Hickeys.<sup>2</sup>

Some manuscripts of the family of O'Liaigh, another race of hereditary physicians in Thomond, are preserved, and are, as I am told by Mr. S. H. O'Grady who has examined them, of the same kind as those of Cormac MacDuinntsleibhe.

The Ui Caiside were a medical clan and were the hereditary physicians of MacUidhir. Finghin O'Caiside, who died in 1322; Gilla na naingel, who

<sup>1</sup> British Museum: Cotton MS. Appendix LI.

<sup>2</sup> It then belonged to Mr. Robert Macadam, and afterwards became the property of Bishop Reeves.



died in 1335 ; Tadhg, who died in 1450 ; Feoiris, who died in 1504 ; and Feidhlimidh, who died in 1520, are mentioned in the annals of Ireland as professors of medicine (*ollam leighis*). All these hereditary physicians read some books of the school of Salernum, the Arabian physicians, and Bernard de Gordon. I have not met with any fragment of Mirfeld in those of their manuscripts which I have examined, but John of Gaddesden was known to them.

The hereditary physicians of Ireland had brethren in Scotland.<sup>1</sup> In early times all the literary associations of Alba, as Scotland is still called by her Celtic inhabitants and neighbours, were with Ireland, and the name Scotland is itself a proof that the language, customs, and social institutions of the country appeared to its neighbours to be identical with those of the inhabitants of Ireland, the Scoti. Most of the families who could trace their ancestry far into the past, traced it to some branch of the half-historic, half-mythological family tree of the Irish, the clan of Miledh, the descendant of Gaedhel Glas. Temhair, now called Tara, was for them the greatest seat of royal splendour, where King Cormac mac Airt had ruled, surrounded by the most redoubted champions, and with vast herds of cattle grazing on fertile plains as far as the eye could reach. The prose and the verse of the Dinnsenchus and the Agallamh

<sup>1</sup> And no doubt in Wales, as shown in *The Physicians of Myddvai*, translated by John Pughe, F.R.C.S., and edited by the Rev. John Williams ap Ithel. Welsh MSS. Society, Llandovery, 1861.

na Senórach, which, under the guise of a narrative of fact, clothed so many mountains, plains, rivers and lakes with romance, were known to them, and they had heard the solemn but often obscure and involved verses of the Amhra in which Dallan Forgaill had celebrated Columba. The kings of Scotland, though they came to be by descent, residence, and language associated with the southern part of their subjects, yet liked to preserve the tradition of connexion with the remote generations of the race of Gaedhel Glas. At the Scottish coronation of Charles I it is said, but on what authority I do not know<sup>1</sup>, that some part of the ancient Gaelic phrases of installation were used for the last time.

When James I came to England he brought with him a physician who seems likely to have belonged to a famous clan of hereditary physicians in the Highlands, Dr. David Betthun. On August 20, 1624, Mayerne<sup>2</sup> drew up a long paper on the use of remedies for the treatment of King James and of Charles, then Prince of Wales, and this is addressed by him as *Regis Medicus Primarius* to the other five royal physicians, Dr. Henry Atkins, Dr. J. Chambers, Dr. Jo. Craig, Dr. Matthew Lister, and Dr. David Betthun. Dr. Betthun had taken a degree at Padua. The transition from acquiring knowledge as a

<sup>1</sup> Related to me as a Highland tradition by Field-Marshal Sir Patrick Grant, who was well acquainted with the language and whose memory was full of old stories and verses.

<sup>2</sup> Opera, p. 288.

member of a family in which some branch of learning was hereditary to its acquirement in a college or university is to be observed here and there. Thus Tadhg an tsleibhe, one of the hereditary historians of Tirconnell, having become a Franciscan of the convent of Donegal, collected the Irish Chronicles as a regular historian with other hereditary historians into the great book commonly known as the Annals of the Four Masters, and Cormac MacDuinnntsleibhe, of the hereditary physicians of Kilmacrenan, at the end of the fifteenth century had taken the degree of Bachelor of Physic,<sup>1</sup> probably in some French University. David Betthun, if my surmise about him be correct, in addition to the medicine which he inherited from the Isles, where his family were hereditary physicians, had graduated at Padua. David became a Fellow of our College, and may be regarded as the sole connecting link between the mediaeval hereditary physicians of Eire and Alba and the medicine of the Renaissance.

A manuscript now in the British Museum<sup>2</sup> belonged in the sixteenth century to John MacBetha, or

<sup>1</sup> Arundel 333, in British Museum, f. 113 b: 'Tairnic an sin suim ocus trächtaid ball nainminntedh o ysac in dietis particularibus ocus cormac mac duinnléibe basillér a fisigeacht do cuir a ngáigdeilg ocus do srib do deinis o eachoidhern annsa cairtsi hé.' 'Here is an end of Summary and treatise on the organs of animals from Isaac, "In dietis particularibus." Cormac Mac Donlevy, Bachelor of Physic, put it into Irish and wrote it for Denis O'Eachodern in this document.'

<sup>2</sup> Additional MS., 15582.

Beton, one of this race of physicians. It was written for him by two Irish scribes, Dáibhí O'Cearnaigh and Cairbre. A note (folio 29 b) shows that its production was not unattended by difficulties: 'There it is from me to thee oh ! John and as I think indeed it is not too good, and no wonder that, for I am ever on the move, flying before certain English up and down Niall's wood and in that very wood I have written a part of it and prepared the skin. I am Cairbre.' The colophon gives the date. 'There is the end of this book for thee John Beton (MacBetha) by David O'Cernaigh and the three virtues and graces go with it to thee. And the age of the Lord when this book was written was one thousand five hundred three score and three years.' Some other pages of the manuscript are in the hand of a James Beton, and there are five memoranda in his hand on folio 61. In one written at Sleat in Scotland, in 1588, he gives his genealogy for ten generations. Another ends: 'That is enough for this day, Saturday; seeing that the woman of this house is very ill, the daughter of MacDubhgall, son of Ranald. I am James Beton and great is my sadness to-day for as Galen says *Medicus et imitator naturae* the physician is but the imitator of Nature.' The manuscript begins with a piece from John of Gaddesden, and also contains a fragment of a mediaeval composition: *Hippocratis Capsula eburnea*, and of excerpts from Gaddesden, Bernard de Gordon, and Platearius of Salernum. The names of Gerardus Cremonensis, Avicenna, Serapion, Rogerius of Parma,



Arnaldus, and Bruno occur in some other passages. There are also a section on *Materia Medica*, and one from Galen on the Humours, an abstract of the *Liber urinarum Theophili* and numerous shorter paragraphs. I published in 1874, in the *St. Bartholomew's Hospital Reports*, an account of this and of the other eight manuscripts on medicine in the Irish language in the British Museum, and a much fuller and more learned analysis of all their contents has since been printed by Mr. Standish Hayes O'Grady in his *Catalogue of the Irish MSS. in the British Museum*, a work of extraordinary learning which reflects the greatest credit not only on its writer but also upon the authorities of the Museum, who have seen that in so recondite a subject a description of the manuscripts with copious extracts from them would be the most useful form of catalogue. The physicians who studied books on medicine in the Irish language, whether in Ireland or Scotland, all belonged to the same school of medicine as the doctor of physic in Chaucer. I am glad for the sake of the continuity of history that one of the race became a Fellow of this College.

On the eastern and southern and the extreme northern bounds of this Celtic nation of Scotland, Teutonic and Scandinavian lords and their followers steadily encroached. They became the dominant part of the State, and their Teutonic language developed a fine literature of its own. Their natural foes, from the geographical situation of their country, were their kinsmen the English, and they lived in a

relation of social hostility and of varying degrees of political alliance with the inhabitants of the mountains and of the Western Isles. They looked for friends to France and to the Low Countries. Many circumstances tended to prolong this friendship after the conditions of its origin no longer existed. The medicine which made the University of Edinburgh famous throughout the world was derived from Holland, and from Edinburgh spread its influence not only in Scotland and Ireland but also in England, where clinical studies were already habitual among physicians.

The systematic teaching of medicine in the University of Edinburgh began at the end of the first quarter of the eighteenth century, and was largely due to the example and exertions of Alexander Monro, the father of the anatomist after whom the cerebral foramen is named. He studied under Boerhaave at Leyden in 1718, and lectured on general anatomy and physiology, comparative anatomy and surgical operations, in one comprehensive course lasting from October to May for thirty-nine years from 1725. He edited, in 1732, the first volume of the *Medical Essays and Observations published by a Society in Edinburgh*. These essays were many of them dissertations on some particular subject, yet among them are sufficient clinical observations to show that the publication had the effect of encouraging clinical observations in Scotland and elsewhere. Dr. John Rutherford, another pupil of Boerhaave, who had also received instruction from

Dr. James Douglas in London, gave in 1748 the first clinical lectures in Edinburgh. Rutherford's lectures, of which there is a manuscript volume in the library of the Royal Medical and Chirurgical Society, are good clinical descriptions of patients with comments upon their symptoms and the treatment. Similar lectures were given by his successors, John Gregory in 1768 and William Cullen in 1769, but neither of these shows the same power of directing the attention of the student to what is to be seen in the patient. Robert Whytt gave clinical lectures at the Edinburgh Royal Infirmary in 1760, and his *Observations on the Nature, Causes, and Cure of those Disorders which are commonly called Nervous, Hypochondriac, or Hysteric*, which appeared in 1764, contains many notes of the symptoms and daily progress of cases of nervous disease. He also had studied under Boerhaave.

The influence of Boerhaave on medical studies of all kinds at Edinburgh may be further understood from the fact that when Dr. John Fothergill, who took his M.D. degree in 1736, studied there, his five teachers—Monro, Alston, Rutherford, Sinclair, and Plummer—had all been pupils of that illustrious Dutchman. The aphorisms of Boerhaave were first published in 1708 at Leyden. Their point, clearness, and comprehensiveness show upon how much clinical observation they were based. Men naturally flocked to Leyden to receive instruction from a teacher who knew so much and who could impart his knowledge in a style so easy to comprehend. No one who

went was disappointed. The aphorisms were even translated into Arabic, and from Constantinople to Dublin pupils of Boerhaave were to be found. The learned and instructive commentaries of Van Swieten prolonged the study of Boerhaave so that his influence as a teacher of medicine lasted for nearly a century. The clinical and the systematic medicine of Scotland were altogether derived from Boerhaave. Rutherford, Gregory, and Cullen spread his fame with their own wherever the doctors they had taught went to dwell. Many were carried to Ireland, among them a pupil of Alexander Monro, Dr. George Cleghorn, whose *Observations on the Endemial Diseases of Minorca from the year 1744-49*, shows a high degree of clinical observation. He lived in Minorca, then a British possession, from 1736 to 1749. He had noted the meteorology and collected the plants and animals of the island, and had made systematic notes on the diseases of the natives and of the troops both as to symptoms and post-mortem appearances. He gives a clear account of cases of continued fever, of pneumonia, and of dysentery in men who already had tertian ague, and some of these seem certainly to have been examples of enteric fever, others perhaps of Mediterranean fever. The book was widely read, for four editions appeared in his lifetime. He went to Dublin in 1751, and there remained for the rest of his life practising medicine and lecturing on general anatomy, of which he became professor in the university. He died in 1789.



Cleghorn, when a student at Edinburgh, formed a friendship with John Fothergill which lasted throughout his life. Both had a taste for botany and both cared for clinical medicine. Fothergill, who took his M.D. degree at Edinburgh in 1736, is perhaps an example of the spread of the influence of Boerhaave to England. In 1748 Fothergill published *An Account of the Sore-throat attended with Ulcers*. The book contains some clinical observations. He shows that the cases of malignant sore-throat which he had seen were quite distinct from quinsy, but does not follow out the cases sufficiently in detail to establish their identity if they were all of the same kind, or, if they were not, their differences. Some of the cases seem to have been examples of diphtheria, and others of a form of scarlet fever. The work is good as far as it goes, but the investigation is imperfect.

Dr. John Huxham is another example of the influence of Boerhaave in England on the study of clinical medicine. Huxham studied under the master at Leyden in 1715. His *Essay on Fevers*, which appeared in 1755, contains many original observations. His treatise, *On the Malignant Ulcerous Sore-throat*, famous as it is, is not, in my opinion, so good an example of clinical observation as the work of Fothergill. It has the same fault of failing to distinguish between cases which we should call diphtheria and others which were probably scarlatina anginosa, but Huxham excels Fothergill in that he seems to have noticed that paralysis of the soft

palate followed some cases of malignant ulcerous sore-throat.

These pupils or members of the school of Boerhaave seem to be more on the look-out for something startling or suitable for clinical demonstration than were the followers of Glisson and of Sydenham, who were content to make no selection, but to observe every circumstance of an illness and by observing everything in many cases hoped to arrive at useful conclusions of general application. Yet the effect of the teaching of Boerhaave and of that of the University of Edinburgh, which was derived from him, was to increase the enthusiasm for clinical observations. The study of clinical medicine among English physicians originated in the learning of the Renaissance, while the origin of clinical study in Scotland is to be found in the teaching of Boerhaave. Such has been the history of the study of clinical medicine in the British Isles. Methods of clinical observation have been improved and elaborated since it has been fully established. Amidst the pursuit of the extensive sciences related to medicine it is for us, the physicians of to-day, to see that the precise observation of disease at the bedside is never displaced in teaching or in practice by other studies.

## APPENDIX

### I. CHARTERS WITNESSED BY GRIMBALD

I. Witnesses of Henry I's grant of ten hides of land at Lifesholt to Abingdon Abbey.

Testibus : Rannulfo cancellario et Grimaldo medico et Iurardo archidiacono et Watero archidiacono: et Willelmo de Albini et Rogero filio Ricardi et Nigello de Oilli et Radulfo basset et Goiffredo filio pagani: Apud Wodestocam. Descripta est autem huius concessionis carta Anno ab incarnatione dominica M. C. XV.

Cartulary of the Abbey of Abingdon  
(Claudius C. ix British Museum,  
f. 147 b).

II. Henricus rex Anglorum Ricardo episcopo Lund. et Hugoni de Bochelanda et baronibus suis omnibus et fidelibus Londonie et Middelsexe salutem. Sciatis me concessisse ecclesie sancte MARIE de Abbendona et Faritio abbati perpetuo habenda hospitia sua de Lundonia in Westmenstrestret cum omnibus rebus pertinentibus ad hospicia omnino ab omnibus quieta sicut melius unquam illa ecclesia et quietus habuit tempore patris et fratris mei. Testibus: Grimaldo medico et Nigello de Albini apud Windesor.

Id. f. 150 a.

III. Henricus rex Anglorum Ricardo episcopo Londoniensi et Hugoni de Bochelanda et omnibus baronibus suis francis et anglis de Lundonia et de Midelsessa Salutem. Sciatis me dedisse sancte Marie de Abendonia et Faritio abbati unam mansam terre que fuit Aldewini in Suthstreta iuxta hospicium

Abbatis paci. Et uolo et precipio ut bene et quiete et honorifice teneat illam terram sicut quietus tenet ibi aliam terram suam. Testibus : Rogero episcopo Salesburie et Giliberto de Aquila et Otiero filio Comitis et Grimbaldio medico et Waltero de Bello-campo apud *Westmonasterium*.

Id. f. 150 a.

IV. Henricus rex Anglorum Willelmo vicecomiti de Oxenefordscira Salutem. Precipio tibi ut illa hida quam Droco et Andelei dedit sancte Marie de Abbendona ita sit quieta de hoc geldo et de omnibus consuetudinibus sicut melius fuit quieta in tempore patris mei et fratris mei et nichil aliud aduersum eam requiras. Testibus Waldrico cancellario et Grimaldo medico. Apud Romesi.

Id. f. 149 a.

V. Mathildis regina anglorum Hugoni de boche-landa et omnibus fidelibus suis de berchescira francis et anglis salutem. Sciatis me dedisse Faritio abbati Abendonie domos et omnia edificia de insula sancte MARIAE ad reficiendum monasterium ipsius sancte MARIE et ipsam insulam predicto monasterio in perpetuum redidisse. Et hoc totum dominus meus rex Henricus michi predictoque abbati meipsa interveniente concessit. Testibus Rogero cancellario et Grimaldo medico.

Id. f. 145 b.

VI. Henricus rex Anglorum omnibus constabulis et omnibus fidelibus suis de curia salutem. Prohibeo ne aliquis hospitetur in villa Abbendune nisi licentia abbatis. Teste Grimaldo medico apud Oxeneford.

Id. f. 151 a.

VII. Henricus rex Anglorum Hugone de Boche-landa et Godrico et Baronibus de Berchscire : francis et anglis salutem. Volo et precipio ut ecclesia sancte MARIE de Abbendona habeat et teneat



terram suam de Winicfelda cum omnibus sibi pertinentibus ita bene et honorifice et in firma pace sicut melius eam tenuit tempore patris et fratris mei. Et precipio ut calumpnia quam Godricus prepositus de Windresores super eam terram facit de baia omnino et perpetualiter remaneat. Testibus: Rogero bigot et Grimaldo medico apud Norhamtoniam.

Id. f. 152 a.

VIII. Henricus rex Anglorum Nigello de Oillei et omnibus venatoribus et mariscalcis suis in curia salutem. Prohibeo ne aliquis uestrum hospitet in Wateleia terra sancte Marie de Abbendona quia clamo eam quietam de hostagio pro anima patris mei et matris mee. Testibus Grimaldo medico et Areta falesia apud Corneberiam.

Id. f. 151 a.

## II. CHARTER WITNESSED BY JOHN OF LONDON THE PHYSICIAN

### CIROGRAPHUM |

Sciant Presentes et futuri quod Ego Gilebertus Prior ecclesie sancte Marie de butteleia et conuentus | eiusdem loci concessimus hospitali sancti Bartholomei lundoniarum et fratribus eiusdem hospitalis totum tenementum | de feodo Radulfi de Ardena quod tenuit Jeremias de ecclesia sancte Marie de butteleia in uico | sancti Nicholai Apud nouum macellum tenendum de nobis iure perpetuo. Reddendo nobis annuatim Pro omni seruicio . x . solidos Ad duos terminos. scilicet ad festum sancti Michaelis v. | solidos et Ad Pascha v solidos. Vt Autem conuencio ista perpetuet. sigilli nostri Auctoritate et | sigilli hospitalis sancti Bartholomei testimonio roboratur. His testibus. Huberto Waltero decano | eboracensi. Oseberto de Glamvilla. Jurdano de scheltuna.

Magistro Roberto subera. Ro|gero Waltero. Henrico de flegga Nicholao Pincerna. Walram Janitore turris lon|doniarum. Henrico de Cornhulla. Radulfo fratre eius. Ricardo filio Reineri. Henrico de lundene|stona. Rogero le duc. Rogero filio Alani. Galfrido Albo. Andrea Albo. Petrofilio | Nevelonis. Roberto de edelmetuna, Johanne Medico lundoniarum.

The Priory of Buttlely was founded by Ranulf de Glanvilla in 1171, and his sister was mother of Herbert Walter who was made Dean of York in 1186 and consecrated Bishop of Salisbury in 1189. His successor as Dean of York was appointed September 6, 1189. Henry of Cornhill and Richard, son of Reiner, were sheriffs (vicecomites) in 1189. Henry of Cornhill was the supporter of Longchamp, Bishop of Ely, in the political struggle of October, 1191, when John (Comes Moretoniae) came to London with William of Coutances, Archbishop of Rouen.

John at that time stayed in the house of Richard, son of Reiner, who died later in 1191. It is probable that Reiner, son of Berenger, who was sheriff in 1156, was father of this Richard.

Henry of Londonstone was so called because his house stood where the Salters Hall now is, not far from the ancient monolith called Londonstone, now fixed into the wall of the church opposite the front of Cannon Street Station.

He was the first mayor of London and between 1193 and 1212 appears in charters as Henricus filius Ailwini maior Londoniarum.

Peter, son of Nevelon, was sheriff in 1191.

Roger le duc was sheriff in 1189 and again with Roger, son of Alan, in 1192.

Roger, son of Alan, became (in the Exchequer year 1213) the second mayor of London.

Galfridus Albus is probably the Galfridus Blund (Geoffrey the fair) who often appears in London charters of the reigns of Richard I and John, and

Andreas Albus is Andrew Blund, also a frequent witness of that period.

The street of St. Nicholas apud novum macellum (St. Nicholas Fleshshambles) was in the city of London in the region between Newgate and St. Martins le Grand. Jeremias had a daughter Cristina, who married Galfridus Aspoinz, and they had two sons, Joseph and William, and Joseph retained a yearly rent of a pound of cumin in this land.

### III. MAYERNE'S NOTE ON THE HEALTH OF JAMES I

British Museum, Sloane MS. 1679, f. 42.

*Scriptum D. D. Medicis Regijs ordinarijs de Sanitate E. M. tuenda, et praesentibus morbis curandis deliberaturis datum, à me Demayerne Regis Medico primario die Decembris 1623.*

IACOBVS I. MAGNAE BRITAN. REX Natus est Edimburgi. Anno 1566. 19 Junij. hora matutina XI $\frac{1}{2}$ .

Nunc agit annum aetatis Quinquagesimum septimum cum Mensibus Diebus.

Nutricem Vnam habuit, Ebriosam. Ablactatus intra annum.

Cerebrum habet firmissimum quod à mari, à vini potu, à vectione in Rheda, nunquam fuit perturbatum.

Afficitur facilè à frigore et crudorem patitur, frigida et humida tempestate.

Thorax ipsi Latus est optimè conformatus, et quae in eo continentur vitales partes validum et vegetum calorem habent, nec vnquam laborant nisi ex accidenti propter aliarum *συμπαθειάν*. Inde fit vt pulmo frequenter fluxione tentetur; cujus materiam ope Cordis calidissimi citissimè percoquit.

Hepar naturaliter bonum, magnum, sanguinis multi, Laudabilis ferax; Calidum; ex accidenti

obstructionibus obnoxium, et ad plurimam bilem generandam pronum.

Lien nunc facilé congerit succum Melancholicum, cujus praesentiam vt varia arguunt symptomata; sic ejus importuna sarcina bonis E. Mi<sup>s</sup> rebus per vias conuenientes subinde à natura deponitur.

Nullus in his duobus visceribus tumor, nulla collectio quam durities prodat; sed vtrumque hypochondrium molle, nunquam nisi flatu distenditur.

Ventriculus vt ad Vberioris alimenti onus subeundum continuo paratus sit, sic ad noxium aut graue vtrinque (magis tamen per inferiora) rejiciendum promptus est. Bene appetit naturaliter, justam portionem debitè concoquit. Sitit frequentissimè. flatu importuno qui vel cruditatis, vel fermentationis soboles est continuó quasi turget.

Intestina lubrica sunt, et mollis semper ac fluida fuit aluus.

Mesenterium in vasorum suorum Maeandris obstructionibus, et biliosae vtique ac pituitosae saburrae coaceruandae quàm maxime deditum.

Renes calidi, ad arenas et calculos generandos dispositi.

Tibiae à natura graciles, minusque firmæ ad molem corporis sustinendam.

Habitus rarus et texturae peruiae, facilé calet calore sicco. Cutis tenuis et delicata admodum quae prurit facillimè.

Fauces angustae difficultatem faciunt in deglutendo, quod vitium E. Mi haereditarium est à matre, et Auo Jacobo quinto Scotiae Regibus.

Facultates Animales et Vitales inculpatae Naturales quae sunt sub Altrice satis firmæ, ex accidenti tantum ferè ob repletionem interturbantur.

Functiones omnes naturaliter bonae, pro re nata, manifestissimè autem et plurimùm ab animi perturbationibus peruertuntur.

Exuberant preter naturam In hepate et venoso



genere flaua bilis, et (quod grauissimorum morborum variis sui partibus vberima atque potentissima causa est) serum. In Ventriculo et Cerebro Pituita. humor melancholicus in Liene.

Quoad res non naturales.

Aër.

E. M. Omnem facile et satis impuné fert aëris intemperiem in actiuis qualitatibus. Austro flante et humidiori tempestate, hyemali praesertim, afficitur, et conflictatur Catarrho.

Cibus.

In Cibus non admodum peccat, nisi quod nihil comedit panis; Assatis carnibus feré vescitur, Elixatis aut raró, aut nunquam, nisi bubulá.

Dentibus carens (qui excidère à Catarrho) non masticat cibos sed deglutit.

Fructus *ωπαίους* quauis hora diej et noctis edit, satis parce tamen quauis vice, sed sine ordine.

Potus.

In Potu peccat quoad Qualitatem, Quantitatem, frequentiam, tempus, Ordinem.

vinum  
muscatel-  
linum tur-  
bidum vn-  
dediarrhoea.

Promiscué bibit Cereuisiam, Alam, Vinum Hispanicum, Gallicum dulce, album (qui ipsi ordinarius potus est) vt plurimùm crassum et turbidum.

Aliquando, praesertim fluente aluo, Alicanticum tinctum.

Attamen non curat sit vinum generosum dummodo dulce. Summa ipsj cum Aqua et omnibus aquatilibus antipatheia.

Motus  
et  
quies.

Violentissimis olim Venationis exercitijs deditus Rex nunc est quietior, et plus quàm par esset jacet aut sedet; sed id ab imbecillitate tiliarum arthriticarum.

Somnus  
et  
Vigilia.

Male naturaliter dormit, et inquieté: Saepissimé expergiscitur noctu, vocatque cubicularios, neque nisi legente Anagnoste obrepit somnus vt plurimùm.

Animi  
pathemata.

Animus facilé mouetur cum impetu; Iracundissimus est, sed citó euanescit pathema. Nunc ex accidenti Melancholicus Liene in sinistro hypochondrio turbas excitante.

Multum mungit. Sternutat saepissime. Non sputum multum, nisi à catarrho. Excreta  
et  
retenta.

Ventriculus facilè nauseat, si contineat cruditates vel bilem. Vomit tamen cum magno conatu, ita vt post vomitum tota facies maculis rubris per diem vnum et alterum variegata appareat.

Flatus multi vtrunque prorumpunt. Nidrosi à ventriculo praesagiunt morbum.

Aluus est admodum Lubrica, et pro ratione ingestorum excrementa variant, quae vt plurimum mollia, biliosa, et admodum foetida egeruntur.

Si ab ingestis natura grauata fuerit, pauló post sese per intestina salutariter exonerat.

Vrinae fluunt Laudabiles vt plurimùm in substantia, Colore, contentis; Copiosae satis. Tartareae, et sabulosae post sedimenti longam depositionem. Intenduntur ab exercitio, a bilis per familiarem Icterus permistione.

Nonnunquam friabiles calculi, vel potius compactae arenulae excernuntur.

Sudat facilè ob cutis tenuitatem, noctu praesertim post exercitium, post Largiores epulas. Sudoris impatiens, vt omnium.

Ab anno 1619 post grauem morbum, In quo fuerunt affixae ano hirudines, fluunt copiosè singulis ferè diebus haemorrhoides, cum maxima *εὐφορία*. Si sistantur (id quod imminente morbo aliquando contingit) euadit. Rex valde iracundus, Melancholicus, Ictericus, calet impensius, deijcitur appetitus. Reduce fluxu omnia in melius mutantur.

Morbi praegressi et praesens ad varias dispositiones morbosas aptitudo.

*Rex ad sextum vsque aetatis annum non poterat* NB incedere, sed gestabatur, adeo debilis fuit à mali lactis temulentae nutricis suctu.

*Inter secundum et quintum Variolae, Morbilli.*

*Quinto* per horas 24 substitit vrina, nihil tamen aut arenosi aut pituitosi ejectum.

Colic.

*Saepissimé* Laboravit dolore Colico à flatu (qui affectus etiam fuit matri familiaris) hic ad 24<sup>tum</sup> vsque aetatis annum grauior, deinceps mitior semper euasit. Causae istius doloris eadem fuerunt semper, Iejunium, Moeror, frigus nocturnum. A contrariis leuamen.

Cholera.

*Frequenter*, et feré quotannis iuuenis corripiebatur Cholera morbo, cum rigore, Vomitus et fluxum biliosum praecedente.

Diarrhoea.

*Diarrhaeae* per totam vitam obnoxius, Vere, et Autumno, potissimum autem circa finem Augusti vel initio Septembris post esum fructuum. Aliquando cum febricula, saepius sine febre.

Praeludia hujus diarrhaeae ferè Moeror animi, suspiria, suspicio omnium, caeteraque Melancholica symptomata. Anno 1610 sub finem Parlamenti solutis supremorum Regni ordinum comitiis post summum moerorem, Dominus defunctus longissimâ variorum symptomatum serie, non sine vitae periculo per octiduum profusissimâ Diarrhaeae Laboravit, per quam excreta aquosa, biliosa foetidissima, tandem atra. Cardialgia, palpitatio, Suspiria, moestitia, etc. Vomitus bis ter-ue quotidie recurrens. Per se sine effatu dignis remedijs Rex conualuit.

1612. 4 Decemb. post mortem filii Melancholicus paroxysmus, cum omnibus symptomatis successit Diarrhoea: soluta omnia intra paucos dies.

1619. Post Reginae mortem praeuiis doloribus Arthriticis et Nephritidis cum crassiorum arenarum iterata exclusione Rostonii febris continua. Diarrhoea biliosa, aquosa profusissima per totum morbi decursum.

Singultus aliquot dierum. Aphthae totum os cum faucibus, ipsoque oesophago occupantes.

Fermentatio humoris acerrimi in ventriculo ebul-

lientis, qui per spumam ex ore efferuescens, liquamine suo instar muriae acri, Labia et mentum exulcerabat.

Animi defectio, suspiria, Metus, Moestitia incredibilis pulsus, Intercidens. Notandum tamen hanc pulsus intercidentiam in Domino esse frequentem tumultuante quantumuis leuiter humore melancholico.

Nephritis per quam sine vlllo remedio excreuit calculum pro more friabilem.

Semel cum vrina effluxit semen.

Durauit morbi istius omnium quos vnquam passus est Rex periculosissimi vigor per 8 dies, in quo foeliciter vsurpata haec remedia. Clyster frequens, Julepi cardiaci cum vitrioli spiritu aciduli. Electuaria Bezahardica. Lapis Brunellae. Magisterium perlarum et corallorum dulce. Tartari cremor etc. Purgatio à qua manifesta omnium symptomatum remissio, et postea successit vi naturae paulatim curatio. Affixae tunc ano hirudines, atque vtiliter in accessione Melancholica applicatae regioni Lienis cucurbitulae.

Post istum morbum per biennium satis bene se habuit Rex, immunis ab aliis etiam consuetis affectionibus. Deinceps recurrit pro more saepius Diarrrhaea minus violenta.

Hoc anno 1623 sub finem Autumni durauit per duos tresue dies. Sedes amplae, Liquidae putres, cum aliqua virium dejectione. Ab ista euacuatione Leuior quae successit in variis juncturis Arthritis, ita vt praeter solitum nunc paucissimis saltem elapsis a dolorum cessatione diebus (septimanis 3<sup>bus</sup>) Rex sine adminiculo incedat, qui antea per menses aliquot vel in cathedra sedere et gestari, vel aliorum sustentaculo vti cogebatur.

Notandus euacuationis spontaneae per secessum effectus foelix.

*Dominus Catarrho à Cerebro in subjectas partes*



- decumbente vt supra dictum facilé concepto frigore molestatur ; humoris pars Coryzam aliquando creat : Vt plurimum pulmones afficit ; sequitur tussis violentissima, sed brevis et (quod mirabile) intra biduum triduum-ue coquitur materia, tussis cessat, et illapsus humor ex bronchiis rejicitur crassus, viscidus, niger. Jactare solet contractum frigus ante cessare quàm praeparari possint à Pharmacopoeo remedia.
- Catar-  
rhus. *Raró febricitat*, si per aliquos affectus inuadit febris brevis ea est et feré Ephemera.
- febris. *Male si se habeat* quocunque modo, atque in E. M<sup>te</sup> Laborent siue animus, siue corpus, facilé succedit Icterus, et flauescunt oculi, symptomate tamen fugaci, quod pauló post sponte euanescit.
- Icterus. Melancholiae hypochondriacae admodum obnoxius.
- Haemor-  
rhoid. *Continuus* vel saltum pene quotidianus fluxus haemorrhoidûm facit vt aliquando non sine dolore anus inuertatur, et sequatur Tenesmus.
- Nephritis. *Nephritis*. Ante plures annos post Venationis exercitium, et longam equitationem saepissimé redditae vrinae turbidae et rubrae instar vini Alicantici (quae sunt Domini verba) etiam sine dolore. 12 Iulii 1613 cruentum Lotium cum arenulis rubris, mox faeculentum et cum crasso sedimento. Vrinae ardor. Dolores renis sinistri : Vomitus crebri caeteraque Nephritica symptomata. Eadem sed grauiora 17 Augusti. 1615 Octobr. Non leuiora. Paroxysmos hosce omnes cum leuamine excepit fluor alui consuetus. Deinceps saepius rediuiuum malum, atque in variis accessionibus rejecti calculi, vel potius conglobatae, et viscida ferruminatione cohaerentes arenulae friabiles, cum morbi solutione.
- Arthritis. *Arthritis*. Multis abhinc annis Inuasêre primó pedem dextrum dolores, cujus inter ambulandum antiqua contorsio, et Vestigiorum à mala consuetudine minus recta positio hunc altero debiliorem

ab ineunte aetate fecit. Postea successere contusiones variae, ab allisione ad tignum, ab illapso saepius equo, ab ocreae et stapediae attritu, et alijs causis externis, quas ingeniosè scrutatur, et graphicè notat Rex vt internarum accusationem apud Medicos eludat. Solet autem dolor pedis dextri affligere vt plurimum non digitos, non pedis cum tibia articulationem, sed sub externo malleolo eam metapedii partem cui Podiæus Musculus adhaeret. Nihilominus obseruauì saepius totum intumuisse pedem, et tantam superfuisse post sedationem dolorum debilitatem vt per plures septimanas ineptus ad motum à consuetis exercitijs abstinere et in lecto vel Cathedra haerere coactus fuerit. Jmò anno 1616 vltra quatuor menses perseuerauit debilitas cum tumore Oedematoso totam tibiam aegram et vtrumque pedem distendente.

Subsequentibus annis contigit vt dolor aggressus sit aliarum partium articulos, pedis sinistri pollicem et malleolos, vtrumque genu, humeros, ipsasque manus; aliquando (non semper) cum rubore, cum tumore saepiùs. Dolor est acutus primis duobus tribus-ue diebus, Noctu vt fluxionibus ordinarium saeuìt, atque exacerbat, mitescit postea, succedit imbecillitas, quae non nisi longo dierum decursu vel domatur vel euanescit.

Hyemali tempestate potissimùm molesta est Arthritis, nec vnquam firmi absolutè sunt artus donec sol redux annum aestiuus caloribus Domino reddat propitium.

Ter in vita correptus fuit acerbissimis coxae doloribus, nuperrimè 28 Octobris 1623 quodam veluti spasmo musculorum et tendinum tibiam sinistram flectentium; à vapore et flatuoso spiritu pertinacissimè nocturnis horis partes istas vellicante.

Observanda tibiæ tenuitas et veluti atrophia, ob intermissionem motus non appellentibus spiriti-

bus et alimento ad partes inferiores, quae fuerunt ab incunabulis graciles et infirmae.

Rex ex Scotia veniens in Angliam ex equo lapsus fregit clauiculam dextram. Alio tempore à casu passus est summam Omoplatae sinistrae contusionem. Curatus fuit optimé. Ab eo tamen tempore factus humorum in brachium dextrum decubitus, vnde exortae glandulae siue Excrescentiae phlegmaticae serofularum aemulae, quae nunc tumidae cum rubore et dolore, nunc subsidentes, tandem ad suppurationem deductae curatis vlceribus, Licet satis longo tempore, attamen extincto subinde rediuiuo fomite persanatae fuerunt.

Notandum saltem ex reliquiis istius humoris, vel forsan ex arthritico succo descendente ad Olecranon dextrum, duobus vltimó elapsis annis, ortum vna nocte tumorem flatu seró-que turgidum, qui citrà apertionem cutis idoneis remediis foeliciter cessit. Semel ab illapso equo pené attritus, et fere fractis costis, per triduûm satis leuiter febricitauit.

Conualuit sine sanguinis missione.

Aliàs fibulâ alterius tibiae pondere equi in planam figuram compressâ cum totius tibiae periculosa contusione et sugillatione, solis topicis, sine febre curatus fuit.

Exquisitissimi sensus est, dolorum impatientissimus, qui dum suam exercent carnificinam, violentissimis motibus jactatur animus atque aestuat circa praecordia bilis, vnde non Lenitur, sed exasperatur malum.

Leuamen poscit et Indolentiam, de causis morbi-  
ficis parum sollicitus.

#### De Remediis.

Medicinam ridet et tam parui pendit Rex vt medicos parum Vtiles minus necessarios pronuntiet. Artem meris conjecturis prae incertitudine inualidis fultam asserit, et dum naturae tribuit omnia, ipsam

proprio fretus iudicio non contemnendis fulcris destitutam si non subuertit, saltem in proprium excidium concitatius ruere incautus sinit.

Purgantibus naturam destrui, et solis Eccoproticis ipsam opus habere affirmat.

Attrahentia pharmaca, e certis partibus certos humores ducentia, vanitatis arguit et accusat.

Abhorret ab iis quae cient tormina vt à Sena. Insipida postulat si eis sit opus.

Clysterem nunquam ante 17 Augustj 1613 admisit. deinceps autem aliquoties hoc remedij genere in Nephriticis doloribus, In diarrhoea, In constipatione alui vsus est; licet semper adsit aliquid quod carpat, praesertim increpans quod ab Enemate flatibus oppleta intestina cum dolore post ipsum rejectum distendantur.

Vnicam potionem assumpsit Catharticum ex Rhabbaro, Sena, tamarindis Manna, idque facillimè, sine nausea, cum optimo successu. Miranti medico quòd tam placidè ventriculo excepisset pharmacum, respondit sibi omnia facilia quae semel facienda statuisset. In summa Id quod vult valde vult.

Julepos sitiens aut Intemperie calida aestuans non rejicit, ex tincturis florum cordialium extractis cum Vitrioli spiritu, addito ad dulcedinem (qua in omnibus delectatur) syrupo violato. de pomis, Julepo Alexandrino vel saccharo.

Vt plurimùm circa horam somni sitiens variis de causis, succum Granatorum dulcium haurit ad 3 iij. vel iiij. Aliàs Limonibus vel aurantiis dulcibus sitim sedat.

Jusculis medicatis aliquando vsus est, à quibus sitis matutina demulcebatur, saltem minus bibebat jejuno ventriculo.

In iis nonnunquam fuit dissolutus Tartari cremor, cujus vires commendat, assumptionem non aspernatur.

In Arthritide solis pultibus siue Cataplasmatibus 4



suum dat suffragium, quae Anodyna praefert caeteris, eaque ad quamvis vel leuissimam dolorum umbram proferri et applicari jubet.

Vult saepius renouari applicationes in quarum apparatu, aëri exponit juncturas et diu et Importuné.

Ordo applicationum is est vt Anodynis, sedato dolore roborantia quantum per Dominum licet vsurpentur.

Linimentis, Emplastris fomentis non vtitur nisi perfunctorié, et per transennam.

Emplastra omnia et Topica calida prurimum mouent, ideó breuissimo ea fert temporis spatio.

- 3 Nephritis hactenus cessit Clysteribus et fomentis, nonnunquam exhibitus foeliciter Lapis Brunellae.
- 2 Melancholica symptomata Tabellis cardiacis sedata, cum conf. Alkdom. Lapide Bezahar etc.
- 1 Catarrhus et tussis Tabellis de Althea, Trochiscis bechicis albis, Saccharo anisato et similibus cesserunt.

Praeterea nihil quod sciam Regiae Majestati fuit administratum.

Nunquam missus phlebotomo sanguis, semel extractus vt praedictum per hirudines.

#### Agenda.

Vrgent potissimúm congenères (quoad causam materialem si ejus originem respicias) affectus Arthritis et Nephritis. Diarrhoeae frequentia perpendenda. Hypochondriacus flatus haud negligendus. Harum affectionum praecautioem, praesentium curationem, et symptomatum sedationem, Rex a suis Doctoribus Medicis postulat, et expectat, etiam citrà expugnationem causae.

#### Statuendum igitur.

Quodnam sit Regiae Majestatis temperamentum, quae inaequalis partium Intemperies.

Quinam et quibus in partibus redundant in ipsius corpore humores.

Quae sint et fuerint praeteritorum affectuum quae pertimescendorum causae.

Quibus morbis futuris videatur maximé obnoxius Rex, et quibus prognosticis (quorum tamen successum auertat Deus) monendus sit vt sibi magis consulat in posterum.

Quinam errores in victu crassi, et non ferendi (in eo qui sanitatem curat et colit) sint emendandi juxta capita τῆς διαίτητικῆς. In cibo, potu, Animi motibus etc.

Quomodo emendandi gradus Intemperieij variae.

Quomodo tollendae obstructiones mesenterii Hepatis, Lienis.

Quibus artibus praeparandi peccantes succi assignatis remediis quàm gratissimis, quae potius sub alimentis quàm sub medicamento specie exhibeantur.

Quibus Catharticis non ingratis, tormina non An vtilia  
cientibus, corpus non perturbantibus purgandi Emetica.  
humores, qui et quando. Hic describenda vsualia  
primas vias euerrentia atque é longinquo ducentia,  
solida, liquida.

Quibus corroborantibus hepatis conseruandus tonus, ejusque adjuuanda αἱμάτωσις, quibus recreandi spiritus deinceps muniendum cor aduersus tetros halitus ab inferiori sentina expirantes ; quibus confirmandus ventriculus aduersus molem cruditatum prouentu quotidiano Luxuriantium : Quibus Cerebrum contra frigoris appulsum et Catarrhi materiam muniendum.

An conueniant Regi Diuretica ad materiam Arthritidis eliminandam bene repurgato corpore. Item ad calculosam saburram euerrendam. Quae. Quando, Quoties exhibenda.

An profutura sint Diaphoretica, quae vel assumpta vel Ichores absorbeant et siccent, vel prouocato

sudore totum venosum genus per habitum hoc inutile veluti lixiuio exhauriant.

De particularibus euacuationibus per os et nares etc.

An Thermae vtilis, an necessariae ad articularum robor. An noxiae, et quatenus ab ipsis metuenda incommoda.

Quid de phlebotomia, cum satis superque fluant haemorrhoides.

Num fovendus naturam sibi ipsi relinquendo hic fluxus, num ab eo pene quotidiano et satis largo aliquid impendeat periculi.

Num si non cohibendus saltem moderandus et corrigenda sanguinis qualitas per chalybeata. Hic de Aquis mineralibus. At fluente sanguine optimé, restitante eo malé se habet Rex.

Quid de Pyroticis utriusque brachio inurendis ad interceptionem et euacuationem materiae arthriticae? post crudorem cerebri ut plurimum paroxysmum suscitantis.

#### QUOD MORBOS ET SYMPTOMATA.

- 4 Quid in Diarrhoea tam frequenti ut fraenos demus humoribus non sine virium jactura et spirituum dispendio nimium fluentibus. An relinquendum Naturae negotium, cum praesertim resumptis viribus Regi sit ab istis fluxibus melius?

An non error est quod fluente aluo vel a principio bibit Alicanticum, et granatorum succum? Quae roborantia post imminutum fluxum danda. Quae eo perseueranda Cathartica, et quomodo exhibenda.

- 1 Quibusnam Cerebrum curandum?  
2 Quibus bechicis tussis licet brevis expugnanda, vel lenienda, quippe violentissima?  
3 Quid ad affectum hypochondriacum, et pulsus intercurrentiam?

Quid ad praecautiorem Nephriticorum symptomatum et renum contemperationem, atque expurga-

tionem? Quid ad dolorem praesentem quoad interna et externa remedia. Assumenda. Injicienda. Admonenda.

Quid ad Arthritidis praecautiōem vt ejus materia diuertatur et deriuetur ab articulis longe aliquo vsuali et quotidiano remedio non ingrato. Quāenam commodissimoe ad istas intentiones viae. Stomachi, Alui, Renis et Vesicae habitus?

Quomodo confirmandae juncturae vt minus pronae sint ad suscipiendas fluxiones et vt causis dolorificis per ligamentorum astrictionem et desiccationem mediocrem resistent.

Quid faciendum In principio dolorum.

Quae conueniant Anodyna praesertim sub forma Cataplasmatiss. Describenda tamen Linimenta, Emplastra fomenta dolores lenientia, vt pro re nata ex penu possint depromi.

An in implacabili cruciatu planē rejicienda Narcotica, praesertim Altercum quod in Arthritide adeo ab authoribus commendatur?

Quāenam ab eo timenda noxa, quibus emendanda, si probetur. Quid de Laudano et similibus in Diarrhoea in arthritide.

Quāenam Roborantia ad dolorum finem Cataplasmata Emplastra Linimenta Balnea, fomenta.

An non Anodynī Cataplasmatiss vsus quod multam recipit Cassiam, et Mucilagines, nimius vsus noxius ob relaxationem articulorum?

An non Domino noxium toties renouare remedia, et artus aëri frigido tam saepe negligenter exponere?

Quibus mediis sanguis et spiritus ad flaccescentes tibias attrahi possint.

Quid in subitaneo casu vt Apopl. faciendum in hoc subjecto?

Omnia haec Viri Excellentissimi Regis Medici ordinarii, prudentiae vestrae sigillatim examinanda, et sedulā Lance perpendenda proponuntur. In



quibus quum de optimi Principis conseruatione imó de vita agatur, aequum est vt (siquidem nihil inpraesentiarum vrget adeó, et sopitae brumali frigore causae morbificae aliquas dant inducias) singuli remotis arbitris, serió apud se, consultis mutis Doctoribus, ex propriâ experientia et obseruationum commentariis efficacissima arma depromant ad istos tam Augusti capitis hostes debellandos. Describantur à vobis remedia, nequid in iis omissum neglectum-ue possit accusari, et vt manus vestrae voluntatis et officii Domino nostro praestiti, atque sedulitatis indefessae testes, ipsum ad Medicas leges alacrius capessendas, atque ad propriam valetudinem iuxta praesentem necessitatem vt oportet curandam non trahant nolentem : sed volentem (id quod bonis omnibus in votis esse debet) ducant.

DEMAYERNE.

Regis Medicus primarius.

#### IV. MAYERNE'S NOTE ON THE HEALTH OF QUEEN HENRIETTA MARIA

British Museum, Sloane MS. 1679, ff. 67-9.

Anno 1641 Mense Julio, Regina abiturians trans mare, tam animi quam corporis curandi ergo, in sequenti valetudinis statu, sequens accepit et secum detulit consilium.

1. *Ventriculi* cruditas a parum cauta victus ratione et frequens ἀποσιτία viscerum et praesertim.

2. *Hepatis* fervida intemperies quod est sanguinis Biliosi sero multo acri scatentis ferax.

3. *Obstructio* venarum Mesaraicarum jecoris lienis, vnde mala succi alimentarii attractio, mala, sanguificatio, mala distributio, Assimilatio pejor. Inde Atrophia.

4. *Tumor* cum duritie Hepatis et lienis, non tantum à flatu hypochondria frequenter distendente, sed etiam à materie congestionem in ipso partium parenchymate cujus dispositio molis incrementum minatur non sine alicujus sinistri eventus metu et imminente periculo :

5. *Alui segnities* vt plurimum et excrementorum siccitas ordinaria, nisi quando fructibus horaeis sese ingurgitat. Cerasis, peponibus, Bericoccis, presertim apersicis, &c.

6. *Hypochondriaca affectio*, Licet temperamentum vniversale sit calidum et siccum Biliosum : attamen animo naturaliter prepensa est in Melancholiam.

7. *Scorbutica dispositio* patens in gingiuis quae facile intumescunt, fundunt sanguinem, et vlceratae abscidunt a dentibus.

8. *Hysterica symptomata*, licet menses satis comode fluant Potius insurgit ad motus animi vterus, quam ad Odores gratos quibus E. M. delectatur, abhorret a foetidis.

9. *Macies ingens*, Marcor ἀτροφία, Tabes prae foribus.

10. *Renâm impuritas* arenosa. Excreuit plures calculos paruos a rene dextro ; In hoc patrisat.

11. Cor palpitât aliquando si mens percellatur.

12. *Pulmo* in angusto locatus saepius fluxione tenui premitur, vnde tussis frequens vt plurimum minus humida, quae hactenus licet satis importuna, subinde tamen cessit remediis bechicis. Noctu inualescit, vnde cogimur saepe confugere ad hypnoticum syrupum de Papauere. Nunquam dedi Laudanum. Sputa satis laudabilia. Tractu temporis timenda, et quauis arte arcenda σὺν θεῷ *Phthoë* vnde maximum impendit discrimen : Ita vt NB videatur naturae cursu futurus hinc E. M. terminus.

13. *Caput tam calidum* vt nulla diu ferre possit integumenta, sine oculorum incommodo, qui (dexter praesertim) saepe rubet et cum palpebris cito inflam-

matur. Variis in locis glabrum est. In Infantia saepius habuit achoras, et nunc saepissime per poros illaesa cute exsudat materia seu sanies oleosa, lintea tenacissime maculans. Obnoxia fuit fere vsque ad eruptionem mensium scabiei siccae, et valde pungenti nares, et Labium superius rediuiua eruptione Subinde occupanti cujus etiam nunc aliqua apparent saepe rudimenta.

14. *Labia* sicca sunt et finduntur persaepe.

15. *Oculi* saepe fluxionem acrem experiuntur.

16. *Dolor* capitis frequens.

17. *Catarrhus* tenuis ordinarius.

18. *Animi Pathemata* violenta, Ira brevis, Meastitia longa. *Lachrymae* frequentes.

19. *Contorsio spinæ* scoliosis.

20. *Latus dextrum* (brachium, manus) altero macilentius veluti arescit.

21. *Ante aliquot annos* vtero gerens, passa est primo stuporem ingentem. Deinde aliquam resolutionem alterius lateris.

22. *Debilitas* Vniuersalis summa.

23. *Consumptio* Vniuersalis ab altricis facultatis mala dispensatione. Nihil adhuc funesti à pulmonibus. Sed Caue.

#### PERPENDENDA.

Ventriculus.

Mesenterium.

Hepar.

Lien.

Renes.

Intestina Aluus.

Hypochondria.

Vterus.

Pulmo.

Caput. Cerebrum.

Oculi.

Spina, nerui.

Vniuersalia	{	Debilitas sive Atrophia.
Praecauenda	{	Vitio hepatis
Tabes siue Consumptio à	{	Pulmonum corruptela.

Domina solum vertere et extra Angliam proficisci quocunque modo constituit.

Praetendit Aquarum Spadensium potum quae praeterquam quod in praesenti corporis statu ipsi futurae sunt admodum noxiae, imò funestae; nunc inclinante anno, et post longam ariditatem, ingruentibus nimbis circa medium mensis Augusti quo vix in eo Loco in Belgio quem sibi metam itineris Domina statuit pedem fixura est. E. M. plene erunt intempestiuae.

Animum rege qui nisi paret Imperat, &c.

In Obsequium (cui me deuinctum tenet Muneris mei conditio), sequentia mihi propono capita ad scribendum consilium quo Domina vtatur pro re nata ex medicorum praesentium directione.

#### Pertractanda.

*De Aquarum Spadanarum usu.*

Noxiae futurae sunt quia. 1. Penetrant nimis. 2. Siccant corpus jam satis exsuccum. 3. Caput opplent. 4. Humores fluidos reddunt et fluxionem irritant in pulmones. 5. Nocent Pulmonibus.

Distingue tempora.

Pete ex fonte et serua. Ne vtaris tamen.

#### *Perpendenda.*

Vis imaginationis circa coelum mutandum.

Coelum non animum mutant qui trans mare currunt.

De Aere, Aquis et locis in Belgio. Vtrecht. Arneim.



Solitudo, vel saltem turbae fuga confert ad sumenda remedia.

Obstructio et tumor manifestus in hepate et liene.

Instauranda partium nutritiarum Oeconomia.

Renes semel et simul euerrendi.

Procurandus liber commeatus spiritibus Impedimenta tollendo, Purgatione per Epicrasin.

Epicerastica quae bonum succum reponunt in locum mali.

Analeptica.

Corroborantia	{	Hepar
aequaliter		Cor
		Cerebrum
Habitus	{	Humectantia
		Mollificantia
		Implentia
Spiritus	{	Recreantia
		Clarificantia
		Multiplicantia

in Corde et Cerebro.

Post vniuersalia instauratis viribus et repleto habitu, Idonea tempestate, vt post annum, &c., deliberandum erit de Aquis Spadanis Puguensibus, forgensibus ad

Tollendam Intemperiem viscerum calidam.

Aperiendas vias.

Corroboranda viscera.

Euerrendos renes.

Si velit Domina eas potare,

Vt quod vult valde vult.

Praecauenda erunt earum incommoda, vt si non prosint saltem non noceant.

Praescribendum aequiualens, ex ♂

An

Interim et exsucco corpore tuto possunt administrari ♂ ♀ ☐ ⊕.

Dubito, nisi magna cum cautione.

## V. HARVEY'S NOTES ON GALEN

Sir George Paget many years ago published, with a facsimile, an English letter of Dr. William Harvey which was preserved, with a skull to which it refers, in an ancient oak cabinet in the library of Sidney Sussex College. This publication led to the proof that the manuscript in the Sloane collection in the British Museum entitled *Gulielmus Harveius de Musculis Motu Locali*, &c., was altogether in the handwriting of Harvey; and Sir George Paget, in his *Notice of an Unpublished Manuscript of Harvey*, London, 1850, has described the contents of the manuscript, and the peculiarities of its writing and annotation. In the same publication he states that but six specimens, of which two were signatures only, of Harvey's handwriting were then known. Five more, two of them only signatures, are described by Dr. Aveling in his *Memorials of Harvey*, London, 1875; while Dr. Munk, in his valuable *Notae Harveianae*, published in the St. Bartholomew's Hospital Reports for 1887, has mentioned two more, a letter to Dr. Baldwin Hamley and two sheets of Harvey's will. Sir George Paget says, 'It seems not unreasonable to expect the discovery of other MSS. of Harvey'; and with regard to his manuscript lectures on general anatomy says, 'This MS. has of late years been sought for in vain; but doubtless it still exists, and will sooner or later be found.' This hope has been fulfilled. The MS.

was found in 1877 in the British Museum, and Sir Edward Sieveking, in his Harveian Oration in that year, published a passage from it. In 1886 this most interesting manuscript was edited by a committee of the Royal College of Physicians of London, and published with an autotype reproduction of the original. It exhibits in every part the peculiarities of Harvey's writing and annotation described thirty-six years before by Sir George Paget, whose careful elucidation and description of the letter at Sidney Sussex College must be regarded as the origin of most of the recently acquired knowledge of the discoverer of the circulation of the blood, of his methods of observation, of his reading, and of his systems of arrangement and of verbal exposition.

Having been a member of the committee appointed in 1885 by the College of Physicians to supervise the publication of the *Prelectiones Anatomiae Universalis*, I had the pleasure of examining every word of the writing with Mr. Edward Scott of the British Museum, to whom the arduous task of transcribing Harvey's crabbed manuscript was entrusted, and by whom it was executed with astonishing precision and expedition. Having thus studied Harvey's handwriting under the able tuition of Mr. Scott, I was sufficiently acquainted with it to recognize as Harvey's thirty-five lines written on a blank page at the end of a copy of Goulston's *Opuscula Varia* of Galen, into which I had occasion to look in the British Museum. The book evidently

belonged to Harvey, who has underlined and annotated many passages. The peculiar conjoined W. H. which he was accustomed to prefix or affix to original notes, which Sir George Paget describes in his account of the manuscript notes on the muscles, and which occurs again and again in the *Prelectiones Anatomiae Universalis*, appears in several places on the margins of the pages of this Galen, amongst others on pp. 101, 234, 235, 236, 239, 246. It is, perhaps, unnecessary with this autograph initial signature to describe other peculiarities which, to those unacquainted with Harvey's hand, can be of little weight; but an *x* for *exemplum*, which precisely resembles that so used in the *Prelectiones*, is to be seen in the Galen, and also a similar 'N. B.' The date of the *Prelectiones* is 1616, and that of the *De Musculis* 1627, while these notes in Galen were made after 1640, thus showing that Harvey's manuscripts have the same peculiarities throughout his life.

This edition, *Claudii Galeni Pergameni Opuscula Varia*, consists of Greek texts with Latin translation printed in parallel columns, and was the work of Dr. Theodore Goulston, a learned fellow of the College of Physicians, the founder of the Goulstonian Lectures still delivered every year at the College in accordance with the terms of the founder's will. Goulston lived in the same parish as Harvey, that of St. Martin, Ludgate, and they were, of course, as fellows of the College of Physicians, acquainted with one another. Goulston died in



1632, and this Galen was published in 1640 by his friend Thomas Gataker. The British Museum copy has been rebacked, but is otherwise in the binding of its period, with a stamped gold pattern in the middle, a border fleury at the corners, and a plain linear border at the outermost part of each side. There is a pattern on the edges of the sides, and the leaves are gilt. A copy of the book, also in contemporary binding, which is in the library of the Royal Medical and Chirurgical Society, has a leather binding without any gilding, so that Harvey's may have been a presentation copy.

Many passages and words are underlined, and the frequent corresponding notes, often of only a single word, in the margin prove that the ink lines were made by Harvey. He has invariably annotated the Latin, and the Greek columns are without marks throughout.

The first work is Galen's *Exhortatio ad Medicinam et Artes*, and this contains underlined passages in six of its nine chapters. Three on athletes and their qualities are not annotated. One example of the notes may be given. In the margin of chapter i. Harvey has written 'Rationali', and has underlined the words printed in italics: 'Has igitur ob causas, quanquam reliquis etiam animantibus haud deest Ratio, tamen *homo solus ob eminentiam*, quâ cæteris præstat, *Rationalis vocatur*.'

Now and then a fresh illustration of Galen's sentiments occurs to Harvey. Learning, says Galen, is to be preferred to rank, which is only of

value in its own country, 'nobilitatem, quâ tantopere turgent haud absimilem *civitatum esse nummis*, qui *apud eos valent*, qui *instituérunt* ; apud alios, *quasi adulterini* repudiantur.' The italics mark Harvey's underlining, and in the margin, apparently as an example of artificial exterior elevation as opposed to the genuine exaltation of worth or learning, he has written 'wooden leggs'.

The second treatise is *Quod Optimus Medicus idem et Philosophus*, and has but few notes. The third, *De Sectis ad Tyrones*, is noted throughout ; but the fourth, *De Optima Secta*, has very few marks of having interested the reader. The remaining treatises, *De Cognoscendis et Corrigendis cujusque Animi Perturbationibus*, *De Dignoscendis et Corrigendis cujusque Animi Erratis*, and *Quod Animi mores sequantur Temperamentum Corporis*, are marked or have marginal notes of one or more words on almost every page. I hope in the St. Bartholomew's Reports to publish a full account of his marginal annotations.

The thirty-five lines in Harvey's hand on the terminal blank page are references to subjects treated on certain pages of the book.

The notes are all brief, but with the underlinings are interesting as showing how carefully Harvey had considered the remarks of Galen, which of the sentiments of that great physician he applauded as he read them, which of his statements he questioned, and which confirmed from his own experience.

Harvey had a profound respect for Aristotle, a passage in whose writings suggested to him, as he says in his *Prelectiones*, the idea of the circulation; and this copy of Galen shows him to us in the act of studying and criticizing the thoughts of another great master of the ancient world.

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